

Report
of the
Medical Officer of Health
City of Glasgow



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THE CORPORATION OF THE CITY OF GLASGOW

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PREFACE

A preface can only attempt to draw attention to some of the more important features of the year's work. At the same time it does present an opportunity of discussing difficulties encountered in providing necessary and adequate health services to the community.

It is only now, during the third year of the National Health Service, that the Government has begun to realise the efficiency and economy associated with administration by the local authority as contrasted with the ponderous machinery of the new hospital service. Everyone is agreed that the best possible National Health Service should be provided for the citizen, but mere expenditure of money is no guarantee of efficiency. Local health authorities can rightly claim credit for the major improvements which have taken place in the health of the people during the past century, and are still expected to give a lead in health matters as they remain the only health bodies which are close to the public and fully understand its problems. They have initiated the majority of the great advances in the field of preventive medicine, and it is fortunate that they still retain control of the preventive and welfare services. In a world of change the local health authority cannot remain complacent, and must continue to show industry and initiative in furthering schemes for the public weal. At the same time, a constant and critical review of the services supplied is necessary to ensure that public money is spent wisely.

POPULATION AND VITAL STATISTICS.

Since the presentation of the 1949 Annual Report important changes have been made in the methods of coding causes of death, and reference to the Vital Statistics Section should be made before making comparison between the mortality rates for this year and previous years.

The population of the city has been estimated as 1,100,000, and it is upon this basis that the various birth and death rates have been calculated. The downward trend of the birth rate became still more

apparent in 1950. The total births were 20,031, the lowest number recorded since the beginning of the century. The number of deaths was 14,090, which is somewhat lower than the average for the preceding ten years. Diseases of the circulatory system contributed more than 30 per cent. of the total mortality from all causes, while 1,082 deaths from tuberculosis were recorded. On the other hand, it is satisfactory to report a record low infant mortality rate of 44 and a further substantial fall in the deaths from infectious diseases.

Since this report was compiled, the results of the 1951 census have been received. The Registrar-General's returns calculate the population on 8th April, 1951, as 1,089,555, a decrease of 3,782 on the total for the same area for 1931 and some 10,000 below the estimated population of the city upon which the various birth and death rates have been calculated.

INFECTIOUS DISEASES.

While diphtheria with no mortality and scarlet fever with only one death show a very encouraging reduction, poliomyelitis shows a disturbing tendency to develop a periodic prevalence, and there has also been a marked and steady increase in dysentery. But undoubtedly the outstanding epidemiological event of the year was the introduction of smallpox into the city by an Asiatic seaman. This resulted in the admission of eighteen confirmed cases to hospital, with six deaths and the vaccination of some 162,000 persons at the Department's centres alone between 27th March and 21st April. This outbreak strengthened the conviction that the control of infectious disease in an area is best served by the co-ordination of fever and tuberculosis hospitals in one group under the direct supervision of the Medical Officer of Health. The value of vaccination was again confirmed and the necessity for the sustaining of an efficient public health service of experienced medical officers emphasised.

Tuberculosis.—In this field, 1950 was notable for two outstanding features. One was the definite decrease in the recorded incidence of the disease and the other was the introduction of B.C.G. vaccination.

The total of 2,446 cases of pulmonary tuberculosis notified during 1950 is 383 fewer than in 1949, and the lowest total since 1942. The cases of non-pulmonary tuberculosis numbered 369, almost half the

total of 735 which was recorded as recently as 1943. Although this decrease is satisfactory, the total for 1950 still remains 48 per cent. above the pre-war average. There is some evidence that cases registered are being discovered at an earlier stage than hitherto, but frequently this initial advantage is lost through the long delay in obtaining hospital treatment. The housing conditions of the city are such that in a large number of cases successful home treatment cannot be carried out, and isolation of the patient is impossible. Concentration on the treatment of the patient alone is insufficient. The work of the tuberculosis health visitor is absolutely essential in the teaching of proper hygiene so as to minimise risk to other members of the family.

The Health and Welfare Committee appreciated the importance of the B.C.G. scheme and agreed to the complete renovation of Moffat Street House and the purchase of Carnbooth and Millbrae House for use as segregation units. A central clinic for preliminary skin tests of contacts and for the vaccination of those contacts not requiring institutional segregation has been opened at 20 Cochrane Street.

Out-patient treatment at Baird Street Auxiliary Hospital, which is now administered by the Western Regional Hospital Board, has materially increased during the year. There has been a large increase in the attendances for collapse therapy, and the number of attendances at the new streptomycin clinic has increased from 6,960 in 1949 to 48,011 in 1950. These large figures are in part an indication of the lack of sufficient hospital accommodation, but they do show a very real effort on the part of the medical staff to provide the best treatment possible for the patients under their care.

VENEREAL DISEASE.

While there was generally a decrease in venereal disease during the year the most prominent features were the fall in the incidence of acute syphilis both in males and females and the decrease in congenital syphilis. The rate per thousand live births for congenital syphilis was 0.55, the lowest on record. During the year 10,692 pre-natal blood tests were carried out, of which 0.70 per cent. were found to be positive. This again is a record low figure. Other features of the report include the diminished demand for hospital beds owing to the greatly improved methods of out-patient treatment and the continued difficulties in the follow-up of defaulters.

MATERNITY AND CHILD WELFARE.

The infant mortality rate is one of the indices of the health of the city, and it is gratifying to be able to report a record low figure for 1950. The rate for the year was 44 per 1,000 live births compared with 49 in 1949, 95 in 1940 and 101 in 1930. For the first time the rate for illegitimate children was no higher than that for legitimate children. It is evident that beneficial influences are now reaching even these difficult social cases. Comment should be made on the increased activity in the Domiciliary Midwifery Service. The bookings have risen, and during 1950, 5,115 confinements were attended by the Local Health Authority midwives. Pupil midwives from the various maternity units in the city receive their district training in the Service.

There was a decline in the number of attendances at Child Welfare Clinics from 120,471 in 1949 to 110,950 in 1950. This fall is more than accounted for by the slight decrease in the birth rate. These centres play a vital part in securing improved standards of child health and in educating parents in child care, and it is to be hoped that the public will increasingly realise the purpose of the clinics and bring their children to them for the skilled observation and advice available.

DOMESTIC HELP SCHEME.

The Domestic Help Scheme continues to give great satisfaction. The service is one of the most appreciated social measures ever introduced by the Corporation. During the year there were 2,820 applications for help in maternity cases and 4,003 in respect of other illnesses, including tuberculosis. Altogether 1,000 home helps are employed, and 45 of these constitute a special section devoted to the care of tuberculous patients.

MENTAL SERVICES.

The outstanding feature of the report on the Mental Services is the growing demand for the services of the medical officers in the case of elderly persons. Unless certification is possible institutional treatment is not available, and particularly when cases live alone a serious problem arises. There is an urgent need for some form of intermediate accommodation for these elderly cases, such as homes or wards in which they can have adequate care and attention without the necessity for certification. So far the Regional Hospital Board has not succeeded in supplying this much needed want.

HOUSING.

At the end of the year the total number of houses provided by the Corporation since the commencement of local government operations was 74,479. Since the war ended the Local Authority has erected 13,789 permanent and 2,550 temporary houses and is now being faced with the difficulty of obtaining suitable sites within the city boundary.

Deterioration of old type property is becoming more serious every year, and an excellent review of the situation by Mr. William Gordon, Town Clerk Depute, has been included in this report.

The difficulties encountered in providing adequate housing accommodation for tuberculous families are commented upon. It will be seen that although 480 such families were rehoused during the year the waiting list still continues to grow. The need for houses at a modest rent for such families is obvious.

A short review of the duties carried out by the Housing nurses has been included. It is only now that the results of their early endeavours are being seen in a marked diminution in the percentage of incorrigible tenants and in the improved behaviour and outlook of the children of difficult tenants rehoused many years ago.

BACTERIOLOGICAL LABORATORY.

This laboratory carried out 101,036 examinations during the year which well exceeds the previous record of 95,851 reached in 1948. Such figures reflect the very close relationship between bacteriology and public health. While there was a welcome decrease in the number of specimens from diphtheria suspects and in the number of examinations made in connection with venereal disease, these decreases were more than offset by the increase in the prevalence of dysentery. In addition, the laboratory undertook work by arrangement for Stirlingshire and Clackmannanshire. Among the many vital services carried out by the laboratory can be listed constant supervision of milk and water, examination of milk bottles and samples of imported foods, examination of the blood of expectant mothers in order to minimise the incidence of still births, abortion and prematurity, and close collaboration with the School Medical Service in the examination of swabs from school children. The facilities afforded by the laboratory are of the greatest help in the prevention and control of disease, and provide information essential for the study of epidemiology.

PORT HEALTH AUTHORITY.

With the expansion of King George V Dock more food ships are berthing at Glasgow, and this of necessity adds to the duties of the Port Inspectors. In all, during the year 1,319 vessels from foreign ports arrived, the large majority being boarded at Greenock ; 833 were from infected ports and 486 from non-infected ports. The inspectors also supervised the condition of the crew's quarters and the application of the regulations with regard to rat extermination.

FOOD INSPECTION.

The campaign for clean food has received support from the findings of the Report of the Catering Trade Working Party. The necessity for strengthening the powers at present possessed by Sanitary Departments needs little emphasis when it is considered how many meals are now consumed away from the home. In addition, a survey of working class restaurants made in the Central area of the city showed that 27 per cent. still do not have a hot water supply laid on to the washing up sink. There is little doubt that education in the simple code of cleanliness and the reasons for it in schools and colleges similar to the lectures given to the Hotel School by the medical staff of the Department would pay large dividends in future years.

SMOKE ABATEMENT AND AIR PURIFICATION.

Recent years have seen a growing interest in this subject and over 80 plant improvements were introduced during the year, apart from repair work on existing plant. Education in boilerhouse practice and fuel economy is being pressed forward, and in this respect the classes conducted by the Chief Smoke Inspector have expanded and been well attended. These classes are an excellent example of practical health education, as the training which the students receive must contribute materially to a decrease in smoke pollution of the atmosphere.

OCCUPATIONAL HEALTH.

A special investigation was carried out in a building trades factory where there was an incidence of oil dermatitis among employees. This section undertakes the medical examinations of entrants to the Corporation Superannuation Scheme and to the Manual Workers Sick Pay Scheme. The service covers all Corporation departments with the exception of Transport, Police and Fire Departments.

GENERAL SANITATION.

The reports of the Divisional Sanitary Inspectors describe a wide and increasing range of functions. In the Northern Division a survey of the residential property is being systematically carried out, and during the year a further 1,689 properties containing 12,306 houses were surveyed. The object of the survey is to ascertain the precise condition of every property and house and to classify them according to specific standards. The opportunity is also being taken to estimate the degree of overcrowding for comparison with that found existing during the survey carried out in 1935. Since the survey commenced in 1948 particulars of 3,448 properties, with 29,381 houses, have been recorded, equal to 43·5 per cent. of the dwellings in the Division.

Attention should also be drawn to the survey of catering establishments undertaken in the Central Division. This survey, which began last year, was completed during 1950, a total of 223 establishments of all types being inspected. The principal object was to ascertain the standard of hygienic food handling, storage and preparation of meals. Those restaurants run in conjunction with large warehouses were best in almost every respect. Working class restaurants on the other hand were much less satisfactory, 27 per cent. being found not to have a hot water supply laid on to the washing up sink.

On 20th March the Department's Rodent Control Section came into being. Details of the work done are included in the reports of the Divisional Sanitary Inspectors.

WELFARE SERVICES.

During the year an additional home for the aged was opened and negotiations were instituted for the acquisition of further houses suitable for adaptation.

Applications by homeless and squatter families for temporary accommodation created some difficulties during the year, as some of them had been evicted for persistent non-payment of rent and were naturally regarded as undesirable tenants when seeking new homes.

During the year a central index of the blind was completed since when almost 2,000 visits have been made to blind persons.

The after-care section referred to in last year's Report is now operating to the benefit of handicapped children.

One of the most outstanding services which the Welfare Section provides is the carrying out of investigations, about 17,000 of which were undertaken during the year. One of the most satisfactory developments has been the co-operation between this section and the voluntary services.

In presenting this report, I am indebted to Miss Mary Knox, the Department's Librarian, who has undertaken its arrangement and publication.

It is once more a pleasure to mention the courtesy and assistance extended throughout the year by the Convener and members of the Health and Welfare Committee.

Stuart Haidland

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SECTION I.

POPULATION, Etc.

The population of the city was 1,089,555 at the Census taken on the 8th April, 1951, a decrease of 3,782 on the figure for the same area in 1931, in spite of the extension of the boundaries in 1938. Some of this decrease is to be attributed to Glasgow's share of the losses sustained by the civilian population and the forces in the Second World War (estimated as approximately 40,000 for Scotland). Also the Census takes account only of the population in the country and the strength of the armed forces to-day is considerably greater than in 1931 with many more serving outside Scotland. This Census figure is much lower than the estimate of 1,110,000 which has been retained for the past two years and is somewhat surprising in view of the increasing pressure on housing accommodation (despite widespread sub-letting, sub-division of houses and accelerated rate of house building) in recent years. Also, as a result of the higher birth rate in the post-war years combined with fewer deaths, there has been a larger Natural Increase (i.e. excess of births over deaths), 134,956 in the twenty years 1931-1950, with more than half of this increase in the later decade, viz. :—

1931-1940 ...	...	...	62,510
1941-1950 ...	...	...	72,446

Thus although Glasgow's population is only 21·4 per cent. of the population of Scotland, the city contributed 26·8 per cent. of the Natural Increase for the country as a whole, but it would appear that this increase is not retained within the city and that there is considerable flow of the population elsewhere.

Added to this is the loss by outward migration—no actual figures are known for the city itself but 220,000 persons emigrated from Scotland between 1931 and 1951.

The census figures for the counties of Renfrew, Dunbarton and Lanark all show an increase of population in their landward areas. This suggests a drift of the population away from the centre to the periphery of the city and beyond.

Details of the age constitution of the population and its distribution throughout the wards of the city will not be available for some time

yet and will therefore be discussed in next year's report. This information is eagerly awaited as it will then be possible to determine to what extent the age constitution of the population has changed during the past twenty years and to estimate the future trend, a matter of some importance now that the care of the aged has become one of the major responsibilities of the Local Authority. Exact information as to the sex and age constitution of the ward populations will be of the greatest assistance in the study of the epidemiology of disease in these areas.

In order that the statistical tables for the Report should not be unduly delayed it was decided to proceed, as in previous years, with a local estimate of the population, modifying somewhat the 1949 estimate which later information suggested was too high. The figure arrived at, though higher than the official estimate made by the Registrar General, seemed justified in consideration of all the information available.

At this point it may be useful to review the various methods adopted in previous years to obtain intercensal estimates and to indicate some of the difficulties involved.

The early reports of the Department, from 1897 onwards, repeatedly stress the greater accuracy of local estimates of population based on the number of inhabited houses in the city as ascertained by the City Assessor at Whitsunday of each year. This figure, multiplied by the average number of persons per house as determined at the previous Census, provided the house population, and to this was added the number of persons resident in institutions (e.g., hotels, lodging-houses, barracks, homes, etc.) from the special survey made at June each year by the Department's inspectors. The previous Census figure for Shipping and Harbour population was then added to give the total estimated population of the city.

These local estimates were used during the intercensal years until 1937, when owing to the fall in the birthrate following the Census of 1931, the factor representing persons per house was no longer regarded as an altogether reliable index and for the first time the Registrar General's estimate was adopted instead. The ward populations, for the estimation of which no other or better method could be devised, continued to be estimated as before but on a revised "persons per house" factor obtained from the 1935 Overcrowding Survey.

In 1939 under the National Registration system it became a statutory obligation on the public to notify changes of place of residence and the information so obtained was utilised by the Registrar General in making up estimates of local population figures. These were to be used as a basis for the calculation of local statistics and referred to civilian population only. The National Registration Census made in September, 1939, excluded shipping and harbour population, as well as service personnel in barracks, etc., and the Glasgow figure, 1,010,043 was found to be considerably less than the Registrar General's own estimate of the civilian population, 1,045,333. This latter figure was used for Annual Report purposes for the next four years and necessitated a recalculation of the persons per house factor in respect of the civilian population.

During these years there was continuous and confusing movement of population as a result of evacuation, the influx of workers and of army and navy personnel, air-raid casualties and departure of both men and women to the services. Similarly in the post-war years there were rapid changes following the return of evacuees, demobilisation from the services, the dispersal of war workers and the resumption of emigration. The housing position was quite abnormal and afforded no reliable basis for the calculation of a persons per house factor.

Local estimates were again used from 1945 onwards, based on the number of the Electorate and on the estimated child population (obtained from the births less the deaths in successive years). In 1945 some attempt was made to estimate the population in the various age groups and the methods and results were fully discussed in the report for 1945 and again in the following year.

In 1948 a redistribution of the wards necessitated another revision of their population. This was based on the known figure of the total electorate. The difference between this figure and the total population, as estimated above, was equivalent to 39.5 per cent., the proportion of children and young adults under 21 years of age. This percentage adjustment was added to the electorate in each ward, but with variation in order to allow for the higher birthrates in some wards compared with others.

The operative factor, however, is the amount of migration into and from the city, and lack of any exact information regarding this has resulted in a certain amount of overstatement. Changes in the Voters' Roll from year to year are a fairly reliable guide as to population

movement between the wards, although these returns are affected by deaths on the one hand and the addition of young adults attaining voting age on the other.

The 1950 population estimate, calculated prior to publication of the Census figure, was determined on the basis of the 1949 population estimate, allowing for the Natural Increase (excess of births over deaths) and loss from migration as follows :—

1949 Population (M.O.H. estimate)	...	...	...	1,110,000
Add births, 1950	...	...	...	20,031
Less deaths	...	...	...	14,090
				<hr/> 5,941
then expected population would be	...	...		1,115,941
But the Registrar General's estimate (1949) was	...			1,099,700
and the Registrar General's estimate (1950) was				1,089,303
a decrease of	...	...	...	<hr/>10,397
Taking the Registrar General's (1949) estimate	...			1,099,700
and adding the Natural Increase (1950)	...			5,941
then the expected 1950 population would be	...			1,105,641
but his 1950 estimate was	...	...	...	1,089,303
a decrease of	...	...	...	<hr/>16,338
which is to be regarded as total migration loss from the city.				

This figure deducted from our estimate of population for 1950 gives the population of 1,099,603, which, to ensure more exact comparison with the 1948 and 1949 estimate was taken as 1,100,000.

Ward Populations.—The ward populations were based on the 1949 estimate, plus the births and less the deaths in 1950, with adjustment for changes in the electorate in the wards, and a *pro rata* reduction for migration loss.

The largest increases were in Pollokshields and Pollokshaws wards where extensive house building is in progress and occupancy of the houses has been speeded up during the past year. Springburn also showed an increase for a similar reason. The trend of the population towards the outer ring of the city is continuing and comparisons of the Census returns shows that there is a considerable "overspill" of the population into the adjacent areas.

Distribution of the population north and south of the river and in each of the five Divisions is as follows :—

Divisions.				Institu- tional Population.	Harbour and Shipping.	Total Population. 1950	1931 Census.
				House Population.			
East	...	...	...	223,087	4,498	—	227,585
North	...	...	...	243,512	9,050	7	252,569
Central	...	...	...	216,605	8,740	960	226,305
North of River				683,204	22,288	967	706,459
South-East	...	...	...	200,654	2,623	—	202,277
South-West	...	...	...	185,052	4,700	512	190,264
South of River				385,706	7,323	512	393,541
Total	...	...	...	1,068,910	29,611	1,479	1,088,461

Institutional Population.—On the 30th June each year a special census of persons resident in hospitals, institutions, hotels, etc., is taken by the district inspectors. Squatters are also included in this return. In 1950 the total was 29,611 compared with 30,115 in the previous year. The largest number in any one ward was 3,819 in Exchange, where most of the hotels are situated, and 2,749 in Springburn almost wholly composed of the hospital populations of Stobhill and Robroyston. Increases were recorded in Provan (377), Pollokshaws (338) and Yoker (280), due respectively to an increase in the population of H.M. Prison, an influx of squatters, and inclusion of a hospital as a result of the change in ward boundaries in 1948. Decreases took place in Maryhill (327), Whiteinch (261), Fairfield (237), and Kelvinside (152).

The institutional population is accommodated as follows :—

General Hospitals	...	...	...	...	3,791
Fever Hospitals	...	...	...	...	1,801
Mental Hospitals	...	...	...	...	2,806
Sanatoria and Other Hospitals	...	...	...	...	5,796
Hotels	...	...	...	...	2,160
Common Lodging Houses	...	...	...	...	4,500
Hostels, etc.	...	...	...	...	3,531
Special Institutions (Barracks, etc.)	...	...	...	...	3,812
Squatters	...	...	...	...	1,414
					<u>29,611</u>

Acres.—The area of the city remains unaltered at 39,725 acres. The largest ward, Provan (4,846 acres), is the only remaining ward still largely rural in character. Though it contains three housing schemes (Greenfield, Carntyne and Cranhill) and an industrial estate (Queenslie) these are grouped in a relatively small area on the western boundary and are the only urban encroachment so far on this area of farms and smallholdings.

In the other four large peripheral wards, Pollokshields (3,239), Pollokshaws (3,223), Cathcart (2,737), and Maryhill (2,210), the conversion from open country to populous suburb is progressing rapidly and will in another year or two be complete.

Density.—The average density for the city remains unchanged at 28. Wards with densities comparable with the City average are Whiteinch (27), Parkhead (26), and Yoker (24). The outer wards of the city, where considerable areas of ground are as yet unbuilt on, have such low densities as Provan (4), Cathcart (8), Pollokshields and Pollokshaws (9 each), Knightswood (10). The great disparity in density throughout the various wards of the city is shown by contrasting these low rates with those of the older wards of the centre of the city, namely Woodside, which has the highest density of any—177 persons per acre, and Gorbals with 161. In Townhead although the number of persons per acre is 124, the actual density may be very much higher as so much of the ward area is taken up by the Necropolis and the railway sidings of High Street Goods Station.

There was little or no change in ward densities during the year. Only two wards, Pollokshields and Pollokshaws, showed a slight increase (from 8 to 9 persons per acre), an indication that the new housing schemes in these areas are now being occupied.

Occupied Houses.—The return of occupied houses as at Whitsunday adjusted for habitant occupiers and shops used as houses, etc., is supplied by the City Assessor. The total for 1950 was 299,038 compared with 296,431 in 1949, an increase of 2,607. The distribution of these throughout the municipal wards of the city is shown in Appendix Table II. The largest increases were 1,095 in Pollokshaws Ward and 1,028 in Pollokshields, due in both instances to housing schemes in these areas, and also, in Pollokshields, to some sub-division of larger houses. Other increases took place in Springburn (618), Ruchill (277), Shettleston (232), and Langside (214), almost all of these being the result of occupancy of Corporation Scheme houses.

The largest decrease in occupied houses was 140 in Govan Ward, where an area in Neptune Street was cleared. Other decreases, in Woodside (109), Gorbals (101), and Cowlairs (97), were mostly due to demolition of 1 and 2 apartment houses.

The number of occupied houses in the city according to size is as follows :—

				Comparison with 1949.		
1 Apartment	...	...	35,279	Decrease	...	589
2 Apartments	...	...	109,819	Decrease	...	573
3 Apartments	...	...	83,898	Increase	...	647
4 Apartments	...	...	46,232	Increase	...	2,884
5 Apartments and over	...	...	23,810	Increase	...	238
				<u>299,038</u>		

Unoccupied Houses.—There were 652 empty houses in the city compared with 441 in 1949. This increase of 211 is due probably to the present practice of offering houses in tenement properties for sale whenever there is any change in the present tenancy. The largest number was in Kelvinside, 107 compared with 86 in 1949. Most of these were of one or two apartments, probably furnished flats, while 33 were houses of five apartments and over. Other wards showed similar increases, viz., Partick E. (49), Pollokshields (38), Camphill (38), North Kelvin (36).

NUMBER OF UNLET HOUSES.

1 Apartment	...	...	...	...	117
2 Apartments	...	...	...	...	142
3 Apartments	...	...	...	...	144
4 Apartments	...	...	...	...	92
5 Apartments	...	...	...	...	157
					<u>652</u>

Dean of Guild Linings.—During the year ended 31st August, 1950, 5,775 linings were granted, more than double the number in 1949. Details of the numbers and size of house for which these were granted are given in Appendix Table III with a comparison of the figures for the preceding years from 1919. Of the total linings issued during the year 1,738 were for three apartments, 3,513 for four apartments and 265 for houses of larger size. In addition 72 single apartment houses, and 187 two-apartment houses, of a type suitable for single women and elderly couples, were approved and are now in course of erection in the Pollok Scheme.

Meteorology.—The weather during 1950 was on the whole wet and dull, with temperatures slightly below normal. The comparatively mild spell which ushered in the year was followed in mid-January by colder weather. With the exception of some cold periods during February temperatures remained about normal till mid-November. This was for Scotland as a whole the coldest November for 25 years and the severe conditions continued with some short intervals throughout December. Snow was experienced in January and February and again in December when it was slow to thaw. Dense and persistent fog was prevalent in November and December and combined with the severe weather was largely responsible for a noticeable increase in deaths from respiratory disease, especially among elderly people.

Rainfall was heavier than usual and uneven in distribution throughout the year. The driest month was May (1·28 ins.) followed by the wettest July for ten years (6·11 ins.), the third successive wet August (5·01 ins.) and a wet September whose monthly total (9·33 ins.) was the heaviest recorded for at least 50 years. The total rainfall for the year was 45·37 inches.

The highest temperature of the year for the whole of Scotland, 88°, was recorded in June at both Glasgow and Ruthwell, Dumfriesshire, and overnight on the 6th/7th of the month the temperature recorded, 67°, was the highest since 1914.

June was also the sunniest month of the year contributing 196 hours of the 1,181 recorded for the whole year.

An abstract of the meteorological observations for each month of the year and a comparison of the annual averages of preceding years is given in Table IV of the Appendix.

HEALTH PROPAGANDA.

In the report for 1950 the Department of Health has this comment to make on the special role played by the local health service in its efforts to reduce and if possible eliminate disease and sickness:—

“ . . . it can be said with some emphasis that there is and probably always will be scope for a great deal of general educational work—in encouraging breast feeding, in training in mothercraft, in ordinary commonsense domestic economy—which comes very much within the duty of local health authorities to provide for the care of mothers and young children and is altogether beyond the scope of general medical services.

“ Indeed, all the activities of the local health authority—the midwifery, home nursing, health visiting and home help services, no less than the provision of day or occasionally residential nurseries—have this important educational element. It is a question both of direct instruction and of teaching by example.”

Nor in this context should the role of the sanitary inspector in maintaining and improving standards of hygiene in houses and workshops, in shops, offices and factories and on board ship be forgotten. The Department's staff wage an unceasing campaign for cleaner air, food and milk, and for the destruction of insect and animal pests.

This day-to-day contact with the public in the ordinary course of their duties, while providing little in the way of immediate spectacular result, affords the staff ample opportunity for giving instruction and advice in personal and communal hygiene and undoubtedly helps to create a more intelligent attitude to these matters.

That a growing demand for such information exists is shown each year by the many requests received by the Department from a great variety of organisations (church, trade union, co-operative, youth, etc.) for talks on health subjects. These were undertaken by members of the medical staff.

The usual programme of health propaganda activities was continued during the year, as for example, weekly talks to mothers attending the clinics, parentcraft classes during the winter months, and tutorial and other special lecture courses to health visitors, municipal midwives and pupils.

Talks to parents of school children on health matters were given by the medical staff of the Education Health Service and a series of lectures on the medical aspects of food hygiene was conducted by the Medical Officer of Health and Dr. Archibald Miller as part of the course for students at the Hotel School, Rosshall.

SECTION II.

VITAL STATISTICS.

The following is a summary of the principal vital statistics of the City :—

SUMMARY.

	1946.	1947.	1948.	1949.	1950.
Population	1,075,000	1,100,000	1,110,000	1,110,000	1,100,000
Acreage	39,725	39,725	39,725	39,725	39,725
Persons per acre	27	28	28	28	28
Number of Inhabited Houses	289,655	291,407	293,814	296,431	299,038
Deaths—Number registered	15,561	16,412	14,638	15,248	15,043
Deaths—After correction for Transfers	14,502	15,267	13,620	14,203	14,090
Births—Number registered	25,391	27,237	22,917	21,584	20,633
Births—After correction	23,560	25,829	22,292	20,923	20,031
Death rate per 1,000 living—All cases	13·49	13·88	12·27	12·79	12·81
Birth rate per 1,000 living	21·92	23·48	20·08	18·85	18·21
Deaths under One Year—After correction	1,588	1,989	1,241	1,033	879
Deaths under One Year—Per 1,000 births	67	77	56	49	44

Particulars of the causes of mortality together with the rates are given in Table VIII in the Appendix, and the age and sex distribution in Table IX.

BIRTHS.

The downward trend of the birth rate, which reasserted itself in 1948 after the temporary post war increase, became more apparent in 1950. After adjustment for inward and outward transfers the 20,633 births registered were reduced to a nett figure of 20,031, the lowest number recorded since the beginning of the century. The average for the preceding five years was 22,581.

The following table shows the progressive decline in the number of births (except in the immediate post-war years) from 1920 onwards:—

1920-24	28,535	1945	20,294
1925-29	23,997	1946	23,560
1930-34	22,433	1947	25,829
1935-39	22,042	1948	22,292
1940-44	21,302	1949	20,923
1950	20,031		

The birth rate for the year, 18·2 per thousand, is the lowest yet recorded, being approximately equal to the rates of 18·5 in 1941 and 18·8 in 1942. The rate for the city is higher than that for Scotland as a whole, 17·9, but is below the rates of several other industrial areas on Clydeside.

A greater proportion of the births this year were male, 52·2 per cent. compared with 51·4 per cent. which was the average for the ten years 1940-49. This advantage at birth is not maintained in infancy when male mortality is invariably higher than the female.

There is considerable variation in the birth rate as between wards, ranging from 11·1 in Cathcart to 24·0 in Gorbals. Half the wards, all of them industrial areas, had rates above the average for the city. Except for the two years 1946 and 1947 when Woodside had the highest rate for the city, Gorbals ward has been pre-eminent in this respect since 1940. Associated with this high birth rate was the highest illegitimacy and infant mortality rate for the city.

Other wards with high birth rates were Hutchesontown 23·0; Govan 22·0; Mile-end 21·8; Kingston 21·8; Townhead 21·1; Kinning Park 20·7; and Cowcaddens 20·6.

In contrast to these figures are the rates for the four residential wards which have the lowest rates of the city, viz., Cathcart 11·1; Camphill 11·6; Kelvinside 11·7; Langside 11·9. Indeed in these four wards the population is failing to replace itself and for the past three years the number of deaths has been in excess of the births, as follows :—

				1948-1950.		
				Births.	Deaths.	Decrease.
Camphill	...	...	...	940	993	53
Cathcart	...	...	...	817	888	71
Langside	...	...	...	1,008	1,023	15
Kelvinside	...	...	...	790	849	59

This has been a frequent occurrence in these four wards throughout the past ten years.

Illegitimate Births.—During the year 1,097 illegitimate births were registered compared with 1,165 in 1949. This represents, on the total births, a rate of 5·5 per cent. compared with 5·6 in 1949 and 5·8 in 1948. The number of illegitimate births in each municipal ward and the respective percentage of the total births are given in Table V.

The highest ward rates were 9·9 in Gorbals and 9·4 in Exchange. Other wards with rates above the average for the city were Calton, 8·7; Park, 8·4; Cowcaddens, 7·1; Maryhill, 7·0; and Kinning Park, 7·0. The lowest rate was that of Craigton, 1·1. The only other wards with rates under 3 per cent. were Langside, 2·9; Govanhill, 2·8; Fairfield, 2·7; and Cathcart, 2·1.

MARRIAGES.

During 1950 there were 9,939 marriages against 10,446 for the previous year. Stated as a proportion of the population this number represents 9·1 per thousand persons compared with 9·5 for the preceding year. From the following table it would appear that the marriage rate is now reverting to its pre-war level. The average of the three years 1936 to 1938 was 9·5.

MARRIAGES PER THOUSAND PERSONS LIVING.

1871-1880	...	...	9·1	1931-1940	...	9·7
1881-1890	...	...	9·3	1941-1945	...	11·0
1891-1900	...	...	9·4	1946	...	10·3
1901-1910	...	...	8·8	1947	...	10·0
1911-1920	...	...	9·7	1948	...	10·0
1921-1930	...	...	8·9	1949	...	9·5
	1950	...	...	9·1		

DEATHS.

The number of deaths registered in the City during the year was 15,043, but after adjustment for inward and outward transfers this figure is reduced to 14,090. This is somewhat lower than the average for the preceding ten years, 1940 to 1949, which was 14,954. The death rate, 12·81, shows a slight increase on that of the preceding year, 12·79, and is higher than the figure for Scotland, 12·4. Mortality for the past five years averages 13·05.

The following statement summarises the death rates since 1881 :—

GLASGOW—ALL CAUSES—DEATH RATE PER 1,000 LIVING.

1881-1890	...	...	24·22	1936-1940	...	14·55
1891-1900	...	...	21·53	1941-1945	...	14·20
1901-1910	...	...	19·56	1946	...	13·49
1911-1920	...	...	16·36	1947	...	13·88
1921-1925	...	...	15·49	1948	...	12·27
1926-1930	...	...	15·04	1949	...	12·79
1931-1935	...	...	13·88	1950	...	12·81

The number of deaths and relative death rates in each Ward of the City are shown in Appendix Table VI compared with the rates for the two previous years.

The following wards have rates in excess of the average for the City :—

Camphill	...	...	16·7	Langside	...	...	14·8
Kelvinside	...	...	15·1	Provan	...	...	14·8
Cathcart	...	...	15·1	Exchange	...	...	14·8
				Park	...	...	14·7

As already mentioned in the preceding section on Births, the deaths exceed the births in each of the first four wards. The similarity in the rates of the last four wards is probably fortuitous. As death rates are largely influenced by the age and sex constitution of the population at risk, and this information will not be available until the recent Census returns have been analysed, it is not at present possible to draw any conclusion from this apparent correspondence in the rates between these very dissimilar communities.

CHANGES IN CLASSIFICATION OF CAUSES OF DEATH, 1950.

The classification of causes of death hitherto used for the Annual Report has been that of the International Classification, revisions of which were adopted in 1927, 1931 and 1940. Since the publication of the last Annual Report certain changes in these classifications have been adopted in Great Britain as a result of the publication of the sixth revision of the International List. The latest code represents for the first time international agreement on a uniform method of selecting the main causes to be tabulated if more than one cause is stated on the death certificate. The Manual also includes international rules to assist the compiler of morbidity and mortality rates in the application of the classification. The new Manual has been compiled under the auspices of the World Health Organization by a group of recognised experts on health statistics. The classification was, together with the rules for using it, unanimously accepted by the Sixth Decennial Revision Conference held in Paris in April, 1948. It was then adopted by the first World Health Assembly, which at the same time issued regulations to guide members in its application. It was adopted by this country as from 1st January, 1950. The Manual lists the causes of death under just over 760 separate headings, but for convenience of presentation they are grouped under a "Short List" of 50. For our local purposes, this Short List has again been used as on previous occasions, but some modification for local statistical purposes has been made. For example, tubercular meningitis and abdominal tuberculosis are shown separately instead of as in the Short List being combined under "Other Tubercular Disease."

Uniform definitions and uniform systems of classification are prerequisites in the advancement of scientific knowledge. In the study of illness and death a standard classification of disease and injury for statistical purposes is essential. As medical science advances a nomenclature must expand to include new terms necessary to record new observations. Any morbid condition that can be specifically described will need a specific designation in a nomenclature.

The problem of classifying causes of death for vital statistics is relatively simple where only one cause of death is involved. However, in many cases two or more morbid conditions contribute to the death, and the purpose of the new classification is to endeavour to select in every instance the true underlying cause of death. This has resulted in changes in the rules of selection of the underlying causes of death when more than one cause is stated on the certificate. For example, diseases of the heart no longer have preference over bronchitis and other respiratory diseases, and this of necessity will increase the proportion of deaths attributable to bronchitis and reduce those attributable to heart disease. Other major changes which also affect the statistics are :—

- (1) Diseases of the heart no longer have preference over intra-cranial vascular lesions.
- (2) Intra-cranial vascular lesions no longer have preference over bronchitis.
- (3) Pneumonia no longer has preference over bronchitis.
- (4) Nephritis no longer has preference over bronchitis and other respiratory diseases or over intra-cranial vascular lesions.
- (5) Cancer, influenza, diabetes, gastro-enteritis in children under two years and certain nervous diseases no longer have a special preference.

The removal of this special preference will tend to reduce the number of deaths among those diseases which no longer have a preference and increase the number of deaths among the diseases over which they previously took precedence. In this group the most important change will be between heart and respiratory disease which are frequently combined as a cause of death.

The changes made in the tabular list of diseases are also important as certain diseases previously listed as respiratory now become circulatory, while others previously tabulated as digestive become respiratory. Advances in the medical knowledge of diseases of the blood and blood forming organs have resulted in certain diseases in this group now being placed in the category of neoplasms of lymphatic and haematopoietic tissues in the cancer group.

In addition to the above changes which are not completely enumerated certain diseases which give rise to small numbers of cases are no longer specifically enumerated. For example, acute encephalitis lethargica, erysipelas, paratyphoid are now grouped under the Short List heading of "other infective and parasitic diseases." Certain diseases formerly grouped as "other nervous," "other circulatory" or "other digestive" are now included in "all other diseases," and the following are some of the diseases now appearing on the Short List for the first time which formerly were included in their relative groups or in "all other diseases," viz. :—

Dysentery.
 Rheumatic fever.
 Chronic rheumatic heart disease.
 Hypertension without mention of heart.
 Cirrhosis of liver.
 Anaemias.
 Intestinal obstruction and hernia.
 Hyperplasia of the prostate.

These changes in the methods of classification mean in effect that exact comparisons between the statistics of the present year and previous years are almost impossible.

Causes of Death.—These are summarised in the following table :—

SUMMARY OF DEATH RATES PER MILLION FROM PRINCIPAL CAUSES.

	1948.	1949.	1950.
General Diseases—			
(a) Infectious	300	219	143
(b) Tuberculosis—			
(1) Respiratory	1,142	1,010	866
(2) Non-Respiratory	135	127	117
(c) Malignant (Cancer, etc.)	1,877	1,940	1,988
Diseases of the Nervous System (including Mental Disorders)	1,473	1,489	1,817
Diseases of the Circulatory System	3,425	3,997	3,887
Diseases of Respiratory System (including Influenza)	824	1,086	1,273
Diseases of Digestive System	386	377	376
Congenital Defects and Diseases of Early Infancy	619	511	514
Violence	490	493	499
All Other Causes	1,599	1,546	1,329
	<u>12,270</u>	<u>12,795</u>	<u>12,809</u>

The above table is a summary of the causes of death as shown in Appendix Table VIII, arranged in the principal groups according to the International Classification, and comparison with those of the two earlier years should be made with the reservation that this will no longer be strictly accurate owing to the alterations in classification already discussed in the preceding pages.

There has again been a very satisfactory reduction in mortality from the acute infectious diseases and the death rate of 143 is a new low record. This is mainly due to the greatly decreased death rate from diarrhoea and enteritis, 74 compared with 158 in 1949 and 225 in 1948. There was an increased incidence in both measles and whooping cough during the year, but whereas the measles death rate has doubled, 14 against 7 in 1949, the whooping cough rate has declined from 19 in 1949 to 12 in 1950.

The one death from scarlet fever (a female of 65 years) illustrates a change in classification. This death, attributed to "septic sore throat. Septicaemia" would formerly have appeared in the "digestive" group of causes of death. The new classification assigns it to "Scarlet fever and streptococcal sore throat."

For the first time on record there was not a single death from diphtheria, an indication that the immunisation campaign is having effect in modifying the severity of this disease.

Meningococcal infections caused 13 deaths compared with 9 deaths from cerebro-spinal fever in 1949. There were 6 deaths in the smallpox outbreak, and 10 from acute poliomyelitis, only 4 of which were of children under 5 years of age.

Tuberculosis.—The decline in the death rate from pulmonary tuberculosis continued, the rate falling from 1,010 in 1949 to 866 in 1950, the lowest rate since 1939. In females the heaviest mortality is in the age groups between 15 and 25 and rather more noticeably this year, in the 25-35 group, while in males deaths are more numerous at ages over 45.

In the non-pulmonary forms a similar decline has taken place, the death rate for 1950 being 117 compared with 127 in 1949, 135 in 1948 and 224 in 1947. The greatest reduction has been in the rate for tubercular meningitis which has fallen from 85 in 1949 to 64 in 1950, the lowest level so far recorded. Abdominal tuberculosis also showed a lower mortality with a rate of 9 compared with 11 in 1949 and 29 in 1948.

Diseases of the Nervous System.—The mortality from this group of causes shows an increase of 328 over the rate for 1949, and some of this increase must be ascribed to changes in the classification. This particularly applies to the chief cause of death in the group, i.e. "vascular lesions affecting the central nervous system" which now has equal preference with heart disease (where death is attributable to both causes). The rate for this cause alone was 1,615 in 1950 compared with 1,231 in 1949. The average rate for the period 1940-49 was 1,224. Non-meningococcal meningitis caused 12 deaths. Deaths following certain mental disorders, of which there were 51, are now to be included under this heading. On the other hand, the group of diseases previously listed as "Other Diseases of the Nervous System" has not been retained, and the 160 deaths which in previous years would have been placed in this category are now included in "All Other Diseases."

Diseases of the Circulatory System.—This group, which accounts for 30 per cent. of the total mortality in 1950, shows some reduction, 3,887 compared with 3,997 in 1949. The various forms of heart disease together form a rate of 3,489 compared with 3,629 in 1949 but part of this reduction must be attributed to changes in classification, particularly as to order of preference when there is more than one cause of death given. Chronic rheumatic heart disease caused 226 deaths, only 6 of which were of children under 15 years of age. Although not in this group it should be mentioned that there were 4 deaths from rheumatic fever in children of school age.

Diseases of the Respiratory System.—The change in the Rules of Selection of cause of death, discussed in the introduction to this section of the Report, has affected the rates in this group in relation to those of the previous year. In 1950 the death rate for the respiratory group was 1,273 per million compared with 1,086 in 1949, and most of this increase is accounted for by the bronchitis death rate. In 1950 this was 633 compared with 292 in 1949 and 221 in 1948, and is the highest rate since that of 1940 when it was 680. As indicated in the explanatory notes bronchitis has now equal preference with heart disease, pneumonia and intracranial vascular lesions, and many deaths which formerly would have been allotted to one or other of these three causes when occurring in conjunction with bronchitis are now assigned to bronchitis. Pneumonia, with a rate of 463, was somewhat lower compared with 548 in 1949, and the influenza rate, 52 compared with

118 in 1949, reflected the reduced prevalence of this disease throughout the year. The rate for other respiratory diseases, 125, was comparable with 128 in 1949 and 126 in 1948. Further reference to this group is made in Section IV of the Report.

Diseases of the Digestive System.—The rate for this group showed little change from the previous year, 376 compared with 377 in 1949.

In ulceration of the stomach and duodenum the rate was unchanged at 112 per million. Appendicitis has risen slightly from 28 in 1949 to 35 in 1950. Intestinal obstruction and hernia, which was not previously shown in the "Short List," had a death rate of 67 in 1950. Six of the deaths from this cause were of infants under 1 year. Male deaths were in the majority, 41 compared with 33 females. Cirrhosis of the liver, which also appears on the Short List for the first time, caused 46 deaths, including one male under 10 years.

Deaths from Violence.—The rate per million for this group has varied little during recent years, 499 in 1950, 493 in 1949, and 490 in 1948. Of the 549 deaths in 1950, 72 were attributable to motor vehicle accidents, 442 to all other accidents, 28 to suicide and self-inflicted injury, and 7 to homicide and operations of war.

The following summary supplies fuller details of the age and sex distribution and shows the preponderance of male deaths at all ages :—

		Males.					Females.				
		—5	—15	—45	+45	Total	—5	—15	—45	+45	Total
1941	...	45	57	170	361	633	33	28	44	178	283
1945	...	37	67	77	179	360	25	19	24	125	193
1946	...	29	43	81	201	354	28	10	28	133	199
1947	...	47	39	91	187	364	21	13	24	130	188
1948	...	38	36	96	175	345	24	10	26	139	199
1949	...	44	40	101	152	337	29	14	35	132	210
1950	...	40	23	92	181	336	19	13	20	161	213

AGE AND SEX DISTRIBUTION.

Details of the age and sex distribution of deaths according to the new International Classification of Causes of Death (Short List) are given in Appendix Table IX.

The increasing mortality at higher ages continued during 1950 with 5,081 male and 4,919 female deaths over 55 years, compared with 4,850 and 4,842 respectively in 1949. During the past twenty years

there has been considerable reduction in the mortality of infants and younger age groups, but mortality at ages over sixty has been increasing, as shown in the following table.

RATE PER 1,000 OF DEATHS AT ALL AGES.

Year.	—1 yr.	—5 yrs.	—15 yrs.	—20 yrs.	—25 yrs.	—65 yrs.	65+ yrs.	All Ages.
1930 ...	152	75	34	21	22	374	322	1,000
1940 ...	113	39	22	21	21	373	411	1,000
1949 ...	73	14	13	12	21	357	510	1,000
1950 ...	62	14	8	9	16	361	530	1,000

Female deaths were less than half the total, 48 per cent. in 1950—a figure that has varied little since the 48·8 per cent. of 1900.

CANCER.

According to the new International Classification of Causes of Death, this disease now appears as “ Malignant Neoplasms, including Neoplasms of Lymphatic and Haemapoietic Tissues ” and during 1950 2,187 deaths were attributed to this cause—a slight increase over the 2,153 cancer deaths recorded in 1949. Wards with high death rates were Camphill (3,301), Provan (2,798), Exchange (2,496) and Govanhill (2,483). The rate for the city was 1,988. For the city as a whole, the heaviest mortality occurs at ages over 45 and with greater incidence among males, and no useful conclusions can therefore be drawn from these ward rates until more detailed information as to the sex and age constitution of the ward populations as determined at the recent census, becomes available.

More than half the deaths were male—1,176 against 1,011 female—and this difference in mortality between the sexes is particularly noticeable for the site, “ Respiratory Organs.” There were 363 male deaths and only 86 female deaths from malignant disease of this type and comparison between these figures and those of earlier years shows a noticeable increase, as in the following table :—

AGE AND SEX DISTRIBUTION OF DEATHS FROM CANCER OF THE RESPIRATORY ORGANS.

MALES.								FEMALES.								All Ages	Both Sexes
—35	—45	—55	—65	—75	75+	All Ages		—35	—45	—55	—65	—75	75+	All Ages			
1932 ...	5	6	13	22	20	3	69	—	1	10	9	3	2	25		94	
1940 ...	5	19	30	41	24	5	124	1	4	9	18	9	2	43		167	
1949 ...	4	26	67	128	60	16	301	4	7	17	25	22	10	85		386	
1950 ...	8	28	91	130	85	21	363	—	9	14	34	17	12	86		449	

The heavy mortality among males in the age group 55-64 years calls for investigation and detailed research for a causative factor.

The next most common site of the disease is the digestive organs and peritoneum. In this group there were 530 male and 486 female deaths compared with 565 and 512 respectively in 1949, a slight decrease. Cancer of the stomach, small intestine and duodenum alone accounted for 233 male and 204 female deaths. Cancer of the breast which ranks second as the most common site of this disease in females, was accorded 165 deaths in 1950 compared with 181 in 1949. As statistics of the incidence of cancer among the population are not complete, it is not possible to say whether this is due to an actual decrease in incidence or to merely a reduction in fatality due to earlier diagnosis and treatment. There was one male death from cancer of this site. Cancer of the uterus also showed some decrease this year—81 deaths compared with 107 in 1949.

Details of the age and sex distribution of cancer with respect to the site of the disease are given in the table on the following page. The totals for both sexes for certain earlier years are also shown for comparison.

Transfer Deaths, etc.—Deaths occurring in the city and transferred to other authorities numbered 1,633, and inward transfers 680, compared with the respective figures of 1,704 and 659 for the previous years. Details are given in Appendix Table VII.

The deaths occurring in hospitals, nursing homes, and other institutions were as follows :—

	1950.
General Hospitals and Welfare Institutions	4,263
Fever Hospitals and Sanatoria	830
Mental Hospitals	327
Voluntary Hospitals	128
Nursing Homes	297
Totals	<hr/> 5,845 <hr/>
Percentage of all Deaths, 1950	41.48
Percentage of all Deaths, 1949	<hr/> 41.65 <hr/>

Cause of death are shown in Appendix Table X.

GLASGOW, 1950.—DEATHS FROM CANCER IN THE DIFFERENT SITES AS GIVEN IN THE INTERNATIONAL LIST OF
CAUSES OF DEATH.

SITE OF LESION.	MALES.									FEMALES.									BOTH SEXES. 1950.	Both Sexes			
	Total.									Total.										All Ages.			
	—15	—25	—35	—45	—55	—65	—75	75+	Total.	—15	—25	—35	—45	—55	—65	—75	75+	Total.	1949.	1940.	1931.		
Buccal Cavity and Pharynx ...	1	—	—	1	2	7	17	18	46	—	—	—	—	—	1	2	8	5	16	62	55	83	100
Digestive Organs & Peritoneum—																							
(a) Oesophagus ...	—	—	1	1	3	14	17	9	45	—	—	—	—	3	8	8	8	27	72	63	67	45	
(b) Stomach and small Intestine incl. Duodenum ...	—	—	3	10	36	70	77	37	233	—	—	2	10	18	49	67	58	204	437	441	394	339	
(c) Rectum ...	—	—	1	2	7	17	21	12	60	—	—	—	—	8	9	16	4	37	97	130	125	97	
(d) Liver and Biliary Passage	—	—	—	—	1	4	8	4	17	—	—	—	—	2	2	10	14	9	37	54	53	80	
(e) Pancreas ...	—	—	—	1	5	13	10	8	37	—	—	—	—	4	7	14	5	30	67	76	46	25	
(f) Peritoneum ...	—	—	—	—	—	1	—	1	2	—	—	—	—	3	2	1	—	6	8	8	9	4	
(g) Other Digestive Organs ...	—	1	3	3	4	29	56	40	136	—	—	2	7	11	31	53	41	145	281	306	265	266	
Respiratory Organs ...	—	1	7	28	91	130	85	21	363	—	—	—	9	14	34	17	12	86	449	386	167	81	
Uterus ...	—	—	—	—	—	—	—	—	—	—	—	2	5	18	26	21	9	81	81	107	118	108	
Other Female Genital Organs ...	—	—	—	—	—	—	—	—	—	—	—	1	6	18	17	7	2	51	51	63	32	35	
Breast ...	—	—	—	—	—	—	—	1	1	—	—	2	19	35	42	38	28	164	165	181	148	112	
Male Genito-Urinary Organs ...	—	1	2	4	2	11	37	25	82	—	—	—	—	—	—	—	—	—	82	65	54	70	
Skin ...	—	—	—	—	—	1	6	4	11	—	—	—	1	—	—	2	9	12	23	27	23	12	
Other or Unspecified Organs ...	8	6	5	9	24	39	33	19	143	6	2	6	6	18	31	29	17	115	258	192	159	111	
Totals ...	9	9	22	59	75	336	367	199	1176	6	2	15	65	153	268	295	207	1011	2187	2153	1770	1516	

SECTION III

MATERNITY AND CHILD WELFARE.

The Maternity and Child Welfare Service continued to work to full capacity throughout the year. The birth-rate for 1950 was slightly lower, and consequently the clinic attendances, both ante-natal and child welfare, showed a corresponding decrease. It is disappointing to have to record that since the passing of the National Health Service Act the number of infants attending the clinics has fallen to below 50 per cent. of the potential. The Maternity and Child Welfare Service is primarily concerned with the education and welfare of all families where there are young children, and it is to be hoped that the purpose of the clinics will become understood by all citizens and that an increasing proportion of infants will be brought to the clinics for the skilled observation and advice available.

It is highly gratifying that the infant mortality rate of 44 was the lowest ever recorded for the city, and that for the first time the infant mortality rate for illegitimate infants was no higher than that of legitimate infants. It is evident that beneficial influences are now reaching even these difficult social cases.

A short comment on the Midwifery Service is appropriate. The arrangements made by the Western Regional Hospital Board have steadied the attendances at Local Health Authority ante-natal clinics, and these remained at approximately 8,000 for the year. Much work has devolved on the Senior Child Welfare Medical Officer as Co-ordinating Obstetric Officer for the Regional Board in the administration of the Maternity Services for the city, particularly with regard to the admission of patients to hospital for confinement. There are still insufficient beds to deal with all the cases who do require hospital confinement either for medical or social reasons. The latter group in particular require special individual investigation before appropriate action can be taken. Mention must be made of the educational work carried out at all Local Health Authority ante-natal clinics by the

health visitors. Weekly talks and demonstrations are given at special sessions at each clinic, and all expectant mothers are welcome whether they are attending the clinic for supervision or not.

With regard to the Domiciliary Midwifery Service, the number of cases attended by the Local Health Authority midwives rose from 4,922 in 1949 to 5,115 in 1950, and the proportion in which a doctor was also booked was 69 per cent. compared with 59 per cent. in 1949. A further point of interest is that in 73 per cent. of the cases the doctor attended at the time of the confinement.

Mention must again be made of the extent of the health education work carried out by the Child Welfare Medical Officers and the Health Visitors. The staff spoke at a very large number of meetings of Women's Guilds and similar organisations and co-operated with the Girls' Training Corps, Girl Guides, and the British Red Cross Association in schemes of training for child care.

INFANT MORTALITY.

For the first time on record the number of infant deaths (after correction for inward and outward transfers) fell below the 1,000 mark in 1950, when only 879 occurred, and the infant mortality rate of 44 was the lowest ever recorded. The decline in the infant mortality rate during recent years is shown as follows :—

1920-24	...	...	108	1946	...	...	...	67
1925-29	...	...	105	1947	...	...	...	77
1930-34	...	...	102	1948	...	...	...	56
1935-39	...	...	93	1949	...	...	...	49
1940-44	...	...	95	1950	...	...	...	44
1945	...	...	68					

The rate for Scotland has fallen correspondingly from 45 in 1948 and 41 in 1949 to 39 in 1950.

The mortality rate per 1,000 male births was 48 as against 54 in the previous year. For females the rate was 39 against 44.

Details of the causes of death for each sex and each quarter of the first year of life are given in Appendix Table XII. The information there given is summarised in the following statement :—

MALES—				Rate per 1,000 Births.					
<i>Causes of Death</i>				1941-45	1946	1947	1948	1949	1950
I.	Immaturity	...	...	42.3	39.1	35.3	33.4	27.6	29.3
II.	Diseases of Respiratory System	...	...	17.6	13.9	14.4	7.8	9.3	7.0
III.	Diseases of Digestive System	...	...	24.2	14.3	26.7	14.1	9.9	4.6
IV.	Diseases of Nervous System	...	...	5.4	4.1	2.5	3.1	2.3	0.7
V.	Tuberculous Diseases	...		1.3	1.2	1.3	0.8	0.5	1.1
VI.	Infectious Diseases	...		4.1	1.5	2.5	0.4	0.9	1.1
VII and VIII.	All other causes			4.9	2.3	4.2	3.7	4.0	4.5
All causes				99.8	76.4	86.9	63.3	54.5	48.3

FEMALES—				Rate per 1,000 Births.					
<i>Causes of Death</i>				1941-45	1946	1947	1948	1949	1950
I.	Immaturity	...	...	34.5	28.9	30.1	26.1	21.9	24.1
II.	Diseases of Respiratory System	...	...	14.0	9.5	9.4	6.4	7.0	5.8
III.	Diseases of Digestive System	...	...	16.1	10.5	18.2	8.8	6.3	3.9
IV.	Diseases of Nervous System	...	...	4.5	2.6	2.2	1.3	3.1	0.1
V.	Tuberculous Diseases	...		1.2	1.4	0.9	0.9	0.6	0.5
VI.	Infectious Diseases	...		4.2	1.5	2.9	1.0	0.9	1.0
VII and VIII.	All other causes			3.3	3.5	3.0	2.9	4.0	3.5
All causes				77.8	57.9	66.7	47.4	43.8	38.9

Ratio—Males to 100 Females	...	130	131	130	134	123	124
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Of all the causes diseases of the digestive system show the greatest reduction and the rates of 4.6 for males and 3.9 for females are less than half the rates for 1949.

The reduction in the respiratory group has been a continuous one since the 1931-40 period, when the rate for males, 24.5, was more than

three times the 1950 figure of 7.0, and at 22.2 for females, more than four times the present rate of 5.8.

Mortality from diseases of the nervous system was again reduced ; there were only seven male deaths and one female in this group. This is a considerable decrease from the 25 male and 31 female deaths recorded in 1949.

Pulmonary tuberculosis accounted for 12 deaths and the meningeal form for four (three male and one female). In the infectious disease group eight of the 22 deaths were measles and other eight whooping-cough. There were four deaths from cerebral spinal fever, and two from chickenpox.

The principal cause of death in the first four weeks of life, when more than half the deaths in the under one age group occur, is prematurity. In 1950 the rate for this group was 29.3 for males and 24.1 for females, both showing a slight increase on the 1949 figures of 27.6 and 21.9 respectively.

The neonatal rate (death rate of children – 4 weeks of age) was for males, 27, females, 21, and for both sexes together, 24. The rate for Scotland was 23.

The following analysis was made of the 573 neonatal deaths which occurred in 1950 :—

417 died during 1st week, and of these, 288 died during first 24 hours ;

67	„	„	2nd week ;
21	„	„	3rd week ;
68	„	„	4th week.

573

The ante-natal care of this group was investigated and the result was as follows :—

No ante-natal care ...	...	...	...	...	15
General practitioner ...	...	...	...	...	217
Hospital ante-natal clinic ...	...	...	...	...	119
Corporation ante-natal clinic ...	...	...	...	...	191
No information ...	...	...	...	...	31
					<hr/> 573 <hr/>

The cause of death was as undernoted :—

Gastro-enteritis	...	...	...	...	...	29
Asphyxia	...	...	...	...	...	43
Injury at Birth, including Cerebral Haemorrhage						92
Atelectasis	...	...	...	...	...	49
Heart Failure	...	...	...	...	...	4
Toxaemia of Pregnancy	...	...	...	...	...	12
Broncho-Pneumonia	...	...	...	...	...	51
Overlaying	...	...	...	...	...	5
Abnormality in Child	...	...	...	...	...	88
Prematurity	...	...	...	...	...	147
Rh Factor	...	...	...	...	...	19
Convulsions	...	...	...	...	...	10
Malpresentation	...	...	...	...	...	3
Disease in Mother	...	...	...	...	...	3
Congenital Syphilis	...	...	...	...	...	1
Congenital Debility	...	...	...	...	...	10
Septicaemia	...	...	...	...	...	1
Marasmus	...	...	...	...	...	2
Whooping-Cough	...	...	...	...	...	1
Precipitate Labour	...	...	...	...	...	1
Inhalation of Vomitus	...	...	...	...	...	2
						<hr/> 573 <hr/>

It was noted that 147 cases had been certified as having died of prematurity, but on examination of the health visitors' records it was found that in actual fact 313 of the group had been born prematurely. These 313 cases were then followed up, and it was only in 38 that it was impossible to ascertain any other probable cause.

A further analysis was made of the 417 children who died during the first week of life according to whether the child had been born at home or in an institution.

Attendance at Birth	Domiciliary.	Institution.
General Practitioner ...	51	338
Midwife ...	12	—
Outdoor Maternity Staff	12	—
Nobody in Attendance	4	—
	<hr/> 79 <hr/>	<hr/> 338 <hr/>

The cause of death in this particular group was as follows :—

	Domiciliary.	Institution.
Asphyxia	7	36
Toxaemia of Pregnancy	1	11
Birth Injury	5	71
Prematurity and Broncho-Pneumonia	—	5
Heart Failure	4	—
Congenital Abnormality	22	28
Atelectasis	4	45
Prematurity	25	101
Rh Factor	1	18
Haem. disease of Newborn	3	4
Disease in Mother	—	3
Malpresentation	—	3
Congenital Syphilis	—	1
Broncho-Pneumonia	1	10
Congenital Debility	6	—
Prematurity and Gastro-Enteritis	—	1
Precipitate Labour	—	1
	79	338

Infant Mortality in Municipal Wards.—Deaths –1 year and the infant mortality rates for 1950 and for previous years are shown for each ward of the city in Appendix Table XI. The highest rate, 63 per 1,000 births, was shared by Exchange and Gorbals wards, both of which have also the highest illegitimate birth rates of all the wards. Other high rates were Mile-end (58), Shettleston and Tollcross (56), North Kelvin (53). The lowest rate (20) in the residential ward of Kelvinside, was followed by 23 in Langside, 25 in Camphill and 29 in Whiteinch.

Mortality among Toddlers.—The following table shows the reduction in mortality among children in the age group one to five years. As is not altogether unexpected, most of the deaths come under the heading of Road Traffic Accidents and other violent causes, this group alone accounting for 23 male and 17 female deaths. Tuberculosis in the meningeal form was responsible for 19 deaths in males and 15 in females. Pulmonary tuberculosis claimed eight of each sex. There were ten male and ten female deaths from pneumonia, normally one of the major causes.

Year	Infant Mortality Rate per 1,000 Births	Deaths 1-5 Years : Actual Number	Rate per 1,000 Population at Ages 1-5 Years
1900	153	2,754	39.2
1911	139	1,862	26.7
1921	106	1,494	19.2
1931	105	1,341	17.2
1938	87	753	9.8
1943	82	394	5.3
1946	67	276	3.6
1947	77	296	3.7
1948	56	219	2.7
1949	49	203	2.4
1950	44	91	2.2

Illegitimate Mortality.—There were 48 infant deaths among the 1097 illegitimate births, equivalent to an infant mortality rate of 43·7. This is the same rate as that for the 828 deaths occurring among the legitimate births and shows a striking decrease in the rate from 66 in 1949 and 81 in 1948.

Stillbirths.—The number of stillbirths registered in the city during the year was 682 compared with 716 in 1949, and 809 in 1948. There were 107 outward and 21 inward transfers, so that the net total for the city was 596 against 639 and 735 respectively. The rate per cent. of the total births, 2·89, is only slightly less than the 1949 rate of 2·96. From information obtained under the Notification of Births Act, it appears that 2·0 per cent. of all births attended at home by doctors were stillbirths, and of those medically attended in institutions and nursing homes, 3·6 per cent. Together the rate indicated is 3·1. Among non-medically attended births the corresponding rate was 1·5. The rates have varied little within the past four or five years.

An investigation was made into the 596 cases registered. For one reason or another, it was impossible to get any information in 31 cases, so that 567 fell to be investigated. Of these, 153 were born at home and 414 in institutions. In the first group, ante-natal care was as follows :—

103 attended a general practitioner ;
 9 attended a hospital clinic ;
 37 attended a Corporation clinic ;
 4 had no ante-natal care.

153

In the second group it was as follows :—

149 attended a general practitioner ;
 121 attended a hospital clinic ;
 138 attended a Corporation clinic ;
 6 had no ante-natal care.

414

STILL-BIRTHS PARITY

1st Child	...	...	...	...	180
2nd	"	...	...	...	129
3rd	"	...	...	...	73
4th	"	...	...	...	54
5th	"	...	...	...	49
6th	"	...	...	...	26
7th	"	...	...	...	16
8th	"	...	...	...	15
9th	"	...	...	...	8
10th	"	...	...	...	6
11th	"	...	...	...	5
12th	"	...	...	...	4
15th	"	...	...	...	1
18th	"	...	...	...	1
					<hr/> 567 <hr/>

The largest single factor noted was found to be a congenital abnormality, such as anencephaly, hydrocephaly, and congenital heart conditions, there being 98 cases in all—27 in the home cases and 68 in institutional cases. This constitutes 17·2 per cent. of the total. Haemorrhage in the mother accounted for 8 domiciliary and 74 institutional cases, which was 14·7 per cent. of the total, and toxæmia of pregnancy was present in 7 domiciliary and 40 institutional cases *i.e.*, 8·25 per cent. There were 51 cases where the foetus was macerated and no cause for this could be ascertained (8·9 per cent.), and in addition there were 25 cases where the reason for stillbirth could not be found, both the mother's condition and the child's development being normal. Twenty-two of the children were born prematurely and 5 were considered to be post-mature.

Other conditions considered to be a factor were—

Ante-Natal—

(1) Placental disturbance, e.g., infarct and early separation ...	...	...	...	...	22
(2) Rh negative cases ...	...	...	...	...	10

Intra-Natal—

(1) Conditions affecting the cord, e.g., prolapse of cord, torsion of cord, and cord round the neck	42
(2) Asphyxia ...	32
(3) Atelectasis ...	15
(4) Difficulties in labour ...	75
(5) Birth injury, including cerebral haemorrhage ...	29

CHILD WELFARE SCHEME.

There are 22 centres including the one at the Royal Hospital for Sick Children. The total number of weekly sessions is 117, which includes 44 ante-natal clinics, 68 child welfare sessions, and 5 for ultra-violet ray treatment.

In addition 6 ante-natal and 3 child welfare clinics still continue to be held at the Royal Maternity Hospital.

The time-table of the clinics as now organised is given—

WELFARE CENTRES FOR EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER FIVE YEARS OF AGE

Address of Centre.			Clinics for Children and Nursing Mothers.	Clinics for Expectant Mothers.
20 COCHRANE STREET	...		Thursday, 9 a.m.	
33 RICHARD STREET	...		Monday, 1.30 p.m. Wednesday, 9 a.m. Thursday, 9 a.m. Friday, 9 a.m.	Monday, 9 a.m. Tuesday, 1.30 p.m.
12 SANDY ROAD	...	...	Monday, 9 a.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Thursday, 9 a.m.
18 PLEAN STREET	...	...	Tuesday, 9 a.m. Wednesday, 9 a.m.	Wednesday, 1.30 p.m.
BLACKWOOD STREET	...		Tuesday, 1.30 p.m.	Friday, 9 a.m.
ROYAL HOSPITAL FOR SICK CHILDREN			Tuesday, 9 a.m. Friday, 1.30 p.m.	
15 GLENBARR STREET	...		Monday, 9 a.m. Tuesday, 9 a.m. Wednesday, 9 a.m. Friday, 9 a.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Thursday, 9 a.m.
194 FERNBANK STREET	...		Monday, 1.30 p.m. Tuesday, 9 a.m. Thursday, 9 a.m.	Monday, 9 a.m. Wednesday, 1.30 p.m.
101 DENMARK STREET	...		Monday, 1.30 p.m. Tuesday, 1.30 p.m. Friday, 1.30 p.m.	Thursday, 1.30 p.m. Friday, 9 a.m.
614 DOBBIE'S LOAN	...		Tuesday, 9 a.m. Wednesday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Tuesday, 1.30 p.m. Friday, 9 a.m.
60 AVENUEPARK STREET	...		Monday, 1.30 p.m. Wednesday, 9 a.m. Friday, 9 a.m.	Tuesday, 9 a.m. Thursday, 1.30 p.m.

WELFARE CENTRES FOR EXPECTANT AND NURSING MOTHERS AND
CHILDREN UNDER FIVE YEARS OF AGE.

Address of Centre.	Clinics for Children and Nursing Mothers.	Clinics for Expectant Mothers.
106 ORR STREET		Monday, 1.30 p.m. Tuesday, 9 a.m. Wednesday, 9 a.m. Thursday, 1.30 p.m. Friday, 9 a.m.
10 REDAN STREET	Monday, 9 a.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 9 a.m. Friday, 1.30 p.m.	
150 WELLSHOT ROAD	Monday, 1.30 p.m. Tuesday, 9 a.m. Wednesday, 1.30 p.m. Wednesday, 9 a.m. Friday, 1.30 p.m.	Monday, 9 a.m. Tuesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 9 a.m.
26 FLORENCE STREET	Monday, 9 a.m. Monday, 1.30 p.m. Tuesday, 9 a.m. Tuesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 9 a.m.	Monday, 9 a.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.
FAULDHOUSE STREET	Thursday, 9 a.m.	Wednesday, 9 a.m.
39 BENGAL STREET	Tuesday, 1.30 p.m. Wednesday, 1.30 p.m.	Friday, 1.30 p.m.
46 BALVICAR STREET	Monday, 9 a.m. Monday, 1.30 p.m. Thursday, 9 a.m.	Thursday, 1.30 p.m.
132 WEIR STREET	Tuesday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m.	
2 SUMMERTOWN ROAD	Tuesday, 9 a.m. Wednesday, 1.30 p.m. Friday, 9 a.m.	Monday, 9 a.m. Thursday, 9 a.m. Thursday, 1.30 p.m.
20 ARKLET ROAD	Monday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m.	Monday, 9 a.m. Tuesday, 9 a.m. Tuesday, 1.30 p.m.
CRAIGSMUIR ROAD	Wednesday, 1.30 p.m. Thursday, 9 a.m. Friday, 1.30 p.m.	Monday, 1.30 p.m. Wednesday, 9 a.m.
MATERNITY HOSPITAL	Monday,* 9 a.m. Wednesday,* 9 a.m. Friday,* 9 a.m.	Monday, 1.30 p.m. Tuesday, 1.30 p.m. Wednesday, 1.30 p.m. Thursday, 1.30 p.m. Friday, 1.30 p.m. Saturday, 9.30 a.m.

* Clinics for Infants under One year of age.

Although the number of infant consultations held during 1950 was increased to 3,427 sessions compared with 3,400 for the preceding year, the total number of attendances at these consultations was again

reduced. It would appear that this reduction is mainly due to the lower birthrate.

The total number of primary attendances of all children was 9,544 and subsequent attendances 103,406 compared with the corresponding figures of 10,037 and 110,434 in 1949. Primary attendances of children under one year of age were also lower, 8,688 against 9,120 in 1949, while subsequent attendances, 80,832 were fewer by 4,704, reductions of 4.7 and 5.4 per cent. respectively.

The following table gives the attendances at each consultation centre during 1950, with the corresponding total figures for the previous year :—

ATTENDANCES AT INFANT CONSULTATIONS, 1950.

	No. of Con- sulta- tions held.	Children—1 year. No. of Attendances.		Children+1 year. No. of Attendances.		Total No. of Attendances.		1949—Total No. of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
<i>Central—</i>									
Cochrane Street	52	67	426	19	239	86	665	88	839
Richard Street	203	422	3,445	117	1,349	539	4,794	645	4,938
Partick ...	149	396	2,756	35	854	431	3,610	430	4,365
Blawarthill ...	103	334	2,450	25	492	359	2,942	507	4,055
Royal Hospital for Sick Child- ren ...	101	107	1,314	4	333	111	1,647	125	1,812
Netherton ...	51	207	1,342	43	391	250	1,733	72	371
<i>North—</i>									
Provan ...	251	531	3,911	69	960	600	4,871	654	5,309
Springburn ...	149	369	3,789	10	925	379	4,714	401	4,849
Denmark Street	147	389	4,587	26	590	415	5,177	431	5,204
Cowcaddens ...	257	474	4,707	58	2,581	532	7,288	530	7,649
Maryhill ...	150	466	3,923	50	1,216	516	5,139	527	5,207
<i>East—</i>									
Redan Street	251	1,111	8,613	107	2,331	1,218	10,944	1,269	11,241
Shettleston ...	302	803	7,867	63	2,734	866	10,601	926	12,506
<i>South-East—</i>									
Gorbals ...	298	847	7,865	67	1,910	914	9,775	991	10,129
Pollokshaws ...	103	293	2,833	21	565	314	3,398	356	3,792
Balvicar Street	144	246	3,490	23	821	269	4,311	277	4,457
Oatlands ...	52	189	2,076	12	391	201	2,467	226	2,486
<i>South-West—</i>									
Weir Street ...	155	239	2,718	25	665	264	3,383	327	3,897
Govan ...	155	353	2,884	37	889	390	3,773	398	4,638
Elder Park ...	200	577	6,101	30	1,650	607	7,791	605	8,446
Penilee ...	154	268	3,735	15	688	283	4,423	252	4,244
	3,427	8,688	80,832	856	22,574	9,544	103,406	10,037	110,434

Infant consultations are also held in the Maternity Hospital and in 1950 there were 2,743 attendances compared with 2,712 in 1949.

"Health of Mother and Child."—This booklet continued in demand at the centres and 4,678 copies were sold during the year. Large numbers continued to be supplied to other Local Authorities in Scotland and in England. Requests for copies continue to be received from all parts of the world.

Ante-Natal Consultations.—Sessions at ante-natal clinics numbered 2,260 compared with 2,265 for the preceding year. The total attendances were 60,192 compared with 64,703 in 1949; primary attendances were 8,078, or 494 less than the previous year (1949); subsequent attendances numbered 52,114, a decrease of 4,017. Consultations and attendances at each of the Centres are shown in the following table :—

ATTENDANCES AT ANTE-NATAL CLINICS, 1950.

	No. of Clinical Sessions.	Number of Attendances.		
		Primary.	Subsequent.	Total.
Richard Street ...	98	387	2,041	2,428
Partick ...	98	327	1,996	2,323
Blawarthill ...	52	242	1,578	1,820
Netherton ...	52	133	900	1,033
Provan ...	251	441	3,427	3,868
Springburn ...	98	341	1,829	2,170
Denmark Street ...	104	326	1,867	2,193
Cowcaddens ...	149	356	2,373	2,729
Maryhill ...	103	445	3,077	3,522
Orr Street ...	253	1,045	8,135	9,180
Shettleston ...	201	897	5,618	6,515
Gorbals ...	251	886	5,340	6,226
Oatlands ...	52	168	1,139	1,307
Pollokshaws ...	50	311	1,549	1,860
Balvicar Street ...	52	82	665	747
Govan ...	150	802	4,398	5,200
Elderpark ...	148	687	4,688	5,375
Penilee ...	98	202	1,494	1,696
	<u>2,260</u>	<u>8,078</u>	<u>52,114</u>	<u>60,192</u>

The total number of cases attending the ante-natal dispensary of the Maternity Hospital for the first time was 3,244, compared with 3,286 in 1949, and the total attendance, 19,690 as against 19,143. Of the 2,542 cases treated to a termination in delivery, 309 were treated in their own homes. Cases treated in the ante-natal wards numbered 1,367.

MATERNAL DEATHS.

In attendance at the ante-natal clinics were 8,416 patients whose pregnancy (excluding abortions) terminated in 1950. Among these, 11 deaths occurred, giving a death rate of 1·3 per thousand births compared with 1·2 in 1949. Causes of death among these 11 women were as follows :—

Toxaemias of Pregnancy	...	...	...	...	...	2
Delivery complicated by disproportion or malposition of foetus	...	...	...	...	...	1
Puerperal phlebitis and thrombosis	...	...	...	...	...	1
Tuberculosis of the respiratory system	...	...	...	...	...	1
Chronic rheumatic heart disease	...	...	...	...	...	2
Arteriosclerotic and degenerative heart disease	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	2
Violent causes	...	...	...	...	...	1

Excluding the seven deaths which had little association with the puerperal state, the maternal death rate of mothers attending the clinics was 0·48 compared with 1·02 for the *city* as a whole.

The following table, based on figures supplied by the Registrar General, compares the rates from each cause for the *whole city* with those of previous years.

STATEMENT SHOWING MATERNAL DEATHS AND RATES PER 1,000 BIRTHS IN GLASGOW AND SCOTLAND IN THE YEARS 1946-1950.

		Deaths.					Rate per 1,000 (live and still) Births.				
		1946.	1947.	1948.	1949.	1950.	1946.	1947.	1948.	1949.	1950
Accidents of Pregnancy	...	15	18	21	11	5	0·61	0·67	0·91	0·51	0·24
Puerperal Haemorrhage	...	21	21	6	6	1	0·86	0·79	0·26	0·28	0·05
Puerperal Septicaemia, including Post-abortive Sepsis	...	15	9	4	6	4	0·61	0·34	0·17	0·28	0·19
Toxaemia of Pregnancy, Albuminuria Convulsions	...	12	12	2	7	5	0·49	0·45	0·09	0·32	0·24
Other Puerperal Diseases	...	6	2	3	4	6	0·25	0·07	0·13	0·19	0·29
Totals—	Glasgow	69	62	36	34	21	2·82	2·32	1·56	1·58	1·02
	Scotland	237	235	160	124	106	2·2	2·0	1·5	1·3	1·1

Dental Treatment of Expectant and Nursing Mothers.—Under the National Health Service (Scotland) Act, 1947, treatment was provided on application, free of cost, irrespective of income.

Since the Act came into operation, however, a serious fall in the numbers seeking dental attention may be noted, due to similar facilities now being provided by the Private Practitioners.

Attendances totalled 2,988, of which 645 were first attendances. Extractions numbered 3,321, 312 fillings were inserted, and 487 dentures were completed. "Scaling" was done for 108 patients and 780 patients had a variety of "other operations."

ULTRA-VIOLET RAY CLINICS.

No alteration has taken place in the arrangements for light treatment of children suffering from rickets, malnutrition, etc.

The installation and the results of treatment have been fully dealt with in previous reports, so that only the records of numbers treated are here given in respect of 1950 :—

RECORD OF ATTENDANCES AND CONSULTATIONS DURING 1949.

	Number of Clinics held.	Children — 1 year. Number of Attendances.		Children + 1 year. Number of Attendances.		Mothers. Number of Attendances.		Total. Number of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Provan ...	98	13	112	163	4,777	4	100	180	4,989
Govan ...	114	16	108	191	3,871	—	—	207	3,979
	<u>212</u>	<u>29</u>	<u>220</u>	<u>354</u>	<u>8,648</u>	<u>4</u>	<u>100</u>	<u>387</u>	<u>8,968</u>

HEALTH VISITORS' TRAINING COURSE, 1950-51.

The number of students trained during the session was only 27 compared with 49 in 1949-50. There is no doubt that the reduction was due to the delay in the award of the new salary scales to health visitors. A further point to note is that of the 27 only 12 were "assisted" students.

HEALTH VISITING SERVICE.

The number of health visitors on the staff at the end of the year, including administrative staff, was 88. This was a slight increase from

the year before, but the number is not yet sufficient to overtake really satisfactorily the work of the maternity and child welfare scheme. The development of the post-natal clinic service is being held up largely because of lack of suitable nursing personnel. It is imperative that the numbers of health visitors trained be increased and it is hoped that recruitment of candidates will improve in the future.

INFANT VISITATION.

Under the scheme of infant visitation every birth is visited, and the following table shows the record of those visited, together with certain information obtained :—

	1947.	1948.	1949.	1950.
Inquiry Cards returned ...	21,413	18,695	20,993	20,860
Full information obtained	21,055	18,373	20,414	20,435
Others	358	322	579	425
Inquiry Cards issued ...	21,196	18,474	21,159	20,845

VISITATION BY NURSES.

Altogether the health visitors made 233,089 home visits during the year, compared with 232,169 during the preceding year. Of these totals the respective numbers for infants under one year of age were 96,167 and 95,435. First visits numbered 20,458. In addition 66,151 visits were made to houses in respect of toddlers, while 14,502 other toddlers were seen during the course of routine visitation of infants. Other visits were made for special enquiries, etc., as shown in the following table :—

VISITS MADE BY NURSES.

	1949.	1950.
Infants under one year—Primary visits ...	20,393	20,458
Infants under one year—Subsequent visits ...	73,042	75,709
	<hr/>	<hr/>
Children one to five years	95,435	96,167
Children seen while visiting infants	66,768	66,151
Ophthalmia Neonatorum	13,773	14,502
Puerperal Fever	958	1,119
Maternal Deaths Enquiries	456	431
Infant Deaths	54	60
Ante-natal Visits	390	382
Venereal Diseases	4,179	3,420
Light Treatment	176	161
Pneumonia	911	472
Other Visits	2	—
Houses Shut	740	1,383
Final Visits	34,586	34,986
	13,741	13,855
	<hr/>	<hr/>
	232,169	233,089
	<hr/>	<hr/>

NURSING HOMES REGISTRATION (SCOTLAND) ACT, 1938.

Three applications were made during the year. One of these was granted, the remaining cases postponing their applications owing to the expense which would be involved in bringing their premises up to the required standard.

The application granted was in respect of premises previously registered and given up, and which were being re-opened as a nursing home under different management. In addition, one of the three applications made in the previous year which were under consideration at the beginning of 1950 was granted.

Three certificates were withdrawn in respect of homes which were discontinued.

Of the five homes previously exempted under the Nursing Homes Registration (Scotland) Act, 1938, two have been registered under the National Assistance (Old Persons' Homes) Act, 1948.

The position of the nursing homes at 31st December, 1950, was as follows :—

Registered	...	...	...	...	35
Exempted	...	...	...	...	3
					<hr/> 38 <hr/>

HOME NURSING SERVICE.

On 31st December, 1950, the Nursing Staff numbered 116. In this figure are included the Superintendent, 4 Superintendents of Branch Homes, 4 Assistant Superintendents, 45 Queen's Nurses on General Nursing work, 21 Queen's Nurses on Maternity work, 20 State Registered Nurses in training for the Queen's Roll, 14 State Registered Nurses employed Full-time on a temporary basis, and 5 State Registered Nurses doing Part-time nursing. In addition there were 1 Queen's Nurse undertaking Part I Midwifery Training in Hospital, and 1 Queen's Nurse undertaking Part II Training on the district. The majority of the nurses are housed in Nurses' Homes but 21, including three male nurses, live at home.

During the year 28 Candidates completed training. Twenty of these are now employed on the staff of this Association, and the remainder on districts in various parts of Scotland.

Under the scheme of co-operation with the Western Regional Hospital Board eight pupil midwives from Cresswell Maternity Hospital, Dumfries, have taken their extern cases on the district in Glasgow during the year. Certain pupil midwives from the Glasgow Royal Maternity Hospital have also been seconded to get their district cases with the staff of the Association.

Cases on Books at 1st January, 1950	...	...	...	...	1,561
Number of New Cases added	...	...	...	...	9,656
Number of Cases dismissed	...	...	...	...	9,599
Number of Cases remaining at 31/12/50	...	...	...	...	1,618
<i>Analysis of—</i>					<i>Cases.</i>
Medical	...	...	...	...	6,312
Surgical	...	...	...	...	1,439
Gynaecological	...	...	...	...	160
Maternity	...	...	...	...	1,745
				Puerperia	...
				Ante-natal	...
					12,499
<i>Dismissed—</i>					<i>Visits.</i>
Convalescent	...	...	...	...	6,397
Hospital	...	...	...	...	1,095
Died	...	...	...	...	1,844
Removed	...	...	...	...	263
No. of Operations attended	...	...	...	...	271
Total Number of Hours on duty	...	...	...	...	203,561
Total Number of Visits paid	...	...	...	...	280,311
Number of Supervisory Visits paid	with	Candidates	with		
Administrative Staff	...	...	...	...	452
Number of Inspections of Nurses	...	...	...	...	129

NURSES' AGENCIES (SCOTLAND) REGULATIONS, 1945.

Nine agencies were granted licences or renewal of licence for the year 1950.

The number on the register at the end of the year 1950 was therefore nine.

DAY NURSERIES.

There are still 15 Day Nurseries in operation and one 24-hour Nursery. For some time only certain priority classes have been considered for admission, namely, the children of unmarried mothers, widows, or mothers who are the main support of their families.

The policy of the Child Welfare Department is not to encourage the mothers of young children to seek work unless they find themselves in the position mentioned above. In any event in special cases only are infants admitted under six months.

NURSERY.	Days Open.	Attend- ances during Year.	Average Daily Attend- ance.	Maximum in One Day.	Number of Places provided at end of Year.		Places taken at end of Year.
					0-2 yrs.	2-5 yrs.	
<i>Central—</i>							
St. Western Road	287	8,614	29	39	15	25	33
Wendyford Place	242	9,709	40	53	20	30	52
<i>North—</i>							
Howcaddens ...	242	7,465	30	45	18	27	42
Hamiltonhill ...	242	8,079	33	49	15	30	51
Brookpark Circus	242	10,287	42	53	25	35	56
<i>East—</i>							
Stridgeton ...	242	9,850	40	48	22	28	48
Mail Street ...	242	9,582	39	50	18	32	51
Walslow Drive ...	242	9,869	41	55	20	40	54
Harrybrae ...	242	3,539	15	20	17	3	20
Westercraigs ...	242	7,192	29	42	15	30	45
<i>South-East—</i>							
Bedford Street	242	6,033	25	36	10	35	35
Colmlea Road	242	8,659	36	49	20	30	50
Collokshaws ...	242	7,368	30	41	10	30	35
<i>South-West—</i>							
Kingston ...	242	7,613	31	39	8	32	41
Wutha Street ...	242	9,565	39	47	20	30	54
Widerpark ...	242	7,898	32	42	15	25	43

RESIDENTIAL NURSERIES.

Scotstoun House and the two Short-Stay Residential Homes were in continuous use during the year. In April, 1950, a part of Scotstoun House was adapted to provide 10 cots for infants born in Robroyston Hospital who had been vaccinated with B.C.G. In August, 1950, Carnbooth Home was opened. This Home has accommodation for 30 children between the approximate ages of 2 and 7 years who are receiving B.C.G. vaccination. A special note about this development in the work is given in the section on tuberculosis.

All the residential institutions find great difficulty in recruiting the necessary number of staff. The main reason is that the remuneration is the same as for day nursery staffs in spite of increased responsibility, longer hours of duty and night duty. In both types of institutions the scales of payment are very much less than those paid to nurses in the hospital service.

			Type of Accommodation.	Total Admissions during Year.	Number of beds provided at end of Year.		
					0-2 Years.	2-5 Years.	Other.
9 Winton Drive	...		Short Stay.	403	12	21	—
Glenrosa, 47 Maxwell Drive.			Do.	363	12	21	—
Scotstoun House	...		Convalescent Home.	141	10	30	—
Carnbooth Home	...		Preventorium (B.C.G.)	42	—	16	12

TRAINING OF NURSERY STUDENTS.

The scheme of training was continued during the year and approximately 50 students were in training for the Nursery Nurses' Certificate.

NURSERIES AND CHILD MINDERS.

The Nurseries and Child Minders Regulation Act, which came into operation in August, 1948, provides for the regulation of certain nurseries and of persons, who, for reward, receive children into their homes to look after them.

During 1950 applications were granted in respect of the following premises :—

- 23 Piccadilly Street, C.3—Nursery School (transfer from 189 Stobcross Street).
- 3 Belgrave Terrace, W.2—Nursery Class (transfer from 329 Sauchiehall Street).
- 30 Burnbank Gardens, N.W.—Nursery School.
- 40 Clouston Street, N.W.—Nursery.
- 53 Queen Square, S.1—Nursery.

Registered prior to 1950 and still in operation during the year were :—

- 29 Oakfield Avenue, W.2—Nursery Class.
- 28 Hamilton Park Avenue, W.2—Nursery Class.
- 68 Overnewton Street—Toddlers Playcentre.

The Child Minders' premises at 10 Comrie Street, registered in 1948, were closed during 1950.

DOMESTIC HELPS.

The Domestic Help Service has continued to expand throughout the year. Its usefulness and popularity are undoubted and so great was the demand for helps that the Corporation decided that approximately 1,000 must be the upper limit of recruitment to the service in 1950.

Applications for help in maternity cases were slightly lower than in 1949, 2,820 compared with 2,834. Of these 2,209 were completed, 323 cancelled and 288 were continued into 1951. Of the 1949 cases still outstanding 203 were completed in 1950 and 70 were cancelled. There were 35,529 working days.

It is disappointing that such a small proportion of the expectant and nursing mothers take advantage of the scheme. The maternity attendance allowance of £1 for 4 weeks after confinement is not being spent as it should be in paying for domestic help. Too many mothers fail to reach a complete restoration to health after confinement. Education of the public in this connection is required.

In the general scheme applications numbered 3,863, an increase of over 1,000 from 1949. Of these 444 were cancelled, leaving 3,419 cases to be dealt with compared with 2,531 in 1949. There were 96,017½ working days. That it is the elderly section of the population most in need of this assistance is shown by the high percentage of these cases in the over 60 years' age group, 70 per cent. in 1950.

In a large number of instances there was no family or near relative to care for the applicant who was so incapacitated by illness or infirmity as to require assistance for a more prolonged period than that permitted by the general scheme (10 weeks). A special " E " scheme was devised to provide assistance for the duration of the person's incapacity. The number registered under this scheme in 1950 was 529, 26 of which were cancelled. The total cases *dealt* with during the year totalled 658 as there were in addition two cases continued from 1947, 31 from 1948 and 122 from 1949. About 90 per cent. of these cases were over 60 years of age and 526 of them could only afford to pay the minimum charge of 6d.

It should be noted that as the number on the " E " scheme rises, as it inevitably does, more helps are permanently employed on these long-term cases which means that fewer are available for the general cases. This position led to difficulties at certain periods of the year when intercurrent illness arose in the population, particularly respiratory infections.

Owing to the peculiarly crippling nature of their disability a similar long-term scheme of assistance had to be arranged for cases of *disseminated sclerosis*. At the end of 1950 there were 14 cases in this group, 11 of them between 40 and 60, two under 40 and one over 60. Ten could afford only the minimum charge of 6d.

In an effort to provide domiciliary care for tuberculous patients who are being nursed in their own home while awaiting admission to hospital, or after dismissal, a tuberculosis scheme of domestic helps came into operation during the year. Forty-five helps were specially enrolled. The helps must be over the age of 40 and no children under 15 years must be resident in their home. Each recruit undergoes a complete medical examination, including x-ray examination, and has a routine medical check-up every six-months. One hundred and forty cases of tuberculosis applied for help. One hundred and twenty-two were assisted and 18 applications were cancelled. Of the cases 81 were under 40 years, 29 were 40-60 years, and 12 were over 60.

The following table shows the illnesses or other conditions in respect of which applications for Home Helps under the general scheme were made.

Diseases	General and "E" Schemes.			
	-40 yrs.	40-60 yrs.	+60 yrs.	Total.
Influenza	32	56	76	164
Cancer	3	25	66	94
Diabetes	3	10	48	61
Intracranial Vascular Lesion	1	40	284	325
Valvular Disease of the Heart	26	131	555	712
Circulatory	12	109	383	504
Respiratory	34	95	337	466
Digestive	6	39	88	133
Kidney Disease	3	13	42	58
Accident	13	39	225	277
Post Operative	36	99	144	279
Debility post Illness	5	18	219	242
Nervous Diseases	11	46	78	135
Hemiplegia	—	5	33	38
Paraplegia	—	4	5	9
Paralysis Agitans	1	2	7	10
General Paralysis	4	12	27	43
Rheumatism	13	83	222	318
Senility	—	—	101	101
Disseminated Sclerosis	9	20	5	34
All Other Causes	15	30	29	74
	<hr/> 227	<hr/> 876	<hr/> 2,974	<hr/> 4,077

MIDWIVES (SCOTLAND) ACTS.

During 1950 there was a decrease of 11 in the number of midwives who notified their intention to practise, so that there are now 143 on the register. The number of those entitled to registration by examination is 139, while the number of those registered as having been in practice in 1914 is now 2. There are also 2 with other recognised qualifications. The number who notified their intention to practise for the first time was 15.

On 31st December, 1950, there were 89 Municipal domiciliary midwives in full-time employment of the Corporation and approximately 20 Queen's nurses engaged full-time in midwifery. The Corporation midwives paid 28,100 ante-natal visits to their patients. 81,293 visits were also carried out during the puerperium. The Queen's nurses paid 42,115 visits. In addition the domiciliary midwives are responsible for the domiciliary training of the pupil midwives from the various ex-Corporation Hospital Maternity Units and a certain number of pupil midwives from the Glasgow Royal Maternity and Women's Hospital. During the year 159 pupil midwives were so trained. The scheme provides that there is always a domiciliary midwife and/or one of the non-medical supervisors with the pupil midwife at each confinement. For this training 33 of the midwives are approved by the Central Midwives Board.

The following table shows the record of work :—

- (i) Total number of births *occurring in the area* during year—that is before correction for mothers' residence :—
 Live Births 20,243 Still Births 602 Total 20,845
- (ii) Total number of births in (i) occurring in institutions (including private maternity homes) 12,623.
- (iii) Total number of births in (i) occurring at home 8,222.
- (iv) Number of births in (iii) classified to show nature of attendance at birth :—

(1)	Cases dealt with under Section 23 (2) of the National Health Service (Scotland) Act, 1947.				Other domiciliary cases.			Total. (8)
	Doctor engaged and present at confinement. (2)	Doctor engaged and present during Labour. (3)	Doctor engaged and not present at confinement. (4)	Midwife alone (no doctor engaged.) (5)	Doctor and midwife engaged. (6)	Midwife alone (no doctor engaged). (7)	Without doctor or midwife. (8)	
Midwives employed by the Authority (including those engaged on a fee-per-case basis)	2,090	524	917	1,576	—	—	8	5,115
Midwives employed by voluntary organisations ...	1,252	233	260	—	—	—	—	1,745
Midwives employed by Hospital Boards of Management	228	630	268	—	—	—	—	1,126
Private practising midwives	—	—	—	—	226	10	—	336
Totals	<u>3,570</u>	<u>1,387</u>	<u>1,445</u>	<u>1,576</u>	<u>226</u>	<u>10</u>	<u>8</u>	<u>8,222</u>

Note—Emergency cases under Section 22 (1) of the Midwives (Scotland) Act, 1915, should *not* be included in the cases in which a doctor has been "engaged."

(v) *Medical Aid.*

- (a) Number of cases in which medical aid was summoned during the year under Section 22 (1) of the Midwives (Scotland) Act, 1915, by a Midwife :—

(i) for Domiciliary Cases 649 } Total 649.
 (ii) for Institutional Cases — }

- (b) Number of cases in which medical aid was summoned during the year for cases where the medical practitioner had agreed to provide maternity medical services under the National Health Service —

Fees to doctors attending emergency cases amounted to £1,097 9s. 6d., and during the year £12 17s. was recovered and £2 9s. 6d. withdrawn from medical practitioners' accounts.

CASES OF PUERPERAL FEVER OCCURRING IN THE PRACTICE OF MIDWIVES.

Year	Midwives	Cases Notified
1939	45	62
1940	42	61
1941	31	41
1942	24	31
1943	29	39
1944	31	39
1945	31	38
1946	28	42
1947	42	63
1948	27	33
1949	14	14
1950	13	15

MATERNITY BUNDLES.

Bundles to the number of 729 were supplied, in respect of which part payment received amounted to £5 8s. 4d.

MATERNITY OUTFITS.

At the end of 1949 the Corporation decided to issue free of charge to all women having a domiciliary confinement and who applied for one a maternity outfit for the confinement. The outfits are obtained from a wholesale firm and each is sterile and in a sealed cardboard carton. The cost of each outfit during 1950 was 13s. 6d. During the year 1,176 were issued.

OPHTHALMIA NEONATORUM.

In 1950 there was an increase in the number of cases notified as ophthalmia neonatorum—the number being 174 compared with 132 in 1949.

An analysis of all notifications, however, showed a slight drop in the number of cases of true ophthalmia, namely, 59 against 61 in 1949.

The undernoted table shows the final analysis :—

Ophthalmia Neonatorum	...	...	59
Purulent Conjunctivitis	...	...	70
Simple Conjunctivitis	...	...	33
Dacryocystitis	...	...	4
No Abnormality Detected	...	...	8
			<hr/> 174 <hr/>

All notified cases according to nature of attendance at the birth :—

Doctors	...	...	...	...	42
Institutions	...	...	...	...	29
Institution Nurses	...	...	...	...	66
Midwives	...	...	...	...	36
No Attendant	...	...	...	...	1
					<hr/> 174 <hr/>

All cases classified according to age at onset :—

— 12 hours	...	...	...	...	15
— 4 days	...	...	...	...	50
— 8 days	...	...	...	...	52
+ 8 days	...	...	...	...	49
No Abnormality Detected	...	...	...	...	8
					<hr/> 174 <hr/>

Bacteriological examination was made in all cases with the following result :—

Gram-positive Diplococci	...	...	51
Staphylococci	...	...	1
Diphtheroids	...	...	54
Koch Weeks	...	...	4
Streptococci	...	...	5
Gonococci	...	...	2
No Organisms Found	...	...	34
No Material	...	...	23
			<hr/> 174 <hr/>

Seventeen cases were admitted to Baird Street Hospital for treatment and in no case was there any impairment of vision. In addition, 19 babies attended as out-patients making 89 attendances in all.

The remaining cases were treated in their own homes by health visitors who made 1,119 visits.

In addition to the Glasgow cases four were admitted from districts outwith the city—one of these being positive for gonococcus.

The Wassermann test for syphilis was done in all hospital cases and all were negative.

PUERPERAL FEVER AND PUERPERAL PYREXIA.

During the year there were registered 153 cases of puerperal fever and 112 cases of puerperal pyrexia compared with 192 and 114 respectively for the preceding year. All but one case of puerperal fever and all but 15 pyrexias were removed to hospital or other institution.

Deaths associated with cases of puerperal fever *notified* during the year numbered 7. This is equal to a fatality rate of 4.6 per cent. compared with 2.6 for the preceding year.

SECTION IV.

INFECTIOUS DISEASES.

As shown in Section II (Vital Statistics) there has been a notable reduction in mortality from the major infectious diseases, but the seasonal and periodic prevalence which is characteristic of each is still a factor to be reckoned with and any relaxation of preventive measures would undoubtedly lead to a major recrudescence. While diphtheria and scarlet fever show a very encouraging reduction, poliomyelitis shows a disturbing tendency to develop a periodic prevalence, and there has been a marked and steady increase in dysentery in recent years.

The table on page 68 which gives the case rates per million for each disease and for each year from 1930 onwards, shows this change in incidence.

During 1950 the total number of cases of infectious disease registered was 34,505 compared with 24,598 in 1949 and 31,549 in 1948. In addition, 2,558 cases removed to hospital were ultimately diagnosed as non-infectious compared with 3,181 in the previous year. There was on the whole less demand for hospital accommodation in 1950, 11,761 cases being removed to hospital compared with 12,161 in 1949 (10,611 to fever hospitals and 1,150 to other institutions, mostly general hospitals).

While admission of cases of respiratory disease were fewer (2,757 primary pneumonia compared with 3,364 in 1949), there was an increased demand for hospital accommodation for poliomyelitis, measles and German measles (272, 839 and 176 cases respectively). Dysentery cases are also being admitted to hospital in increasing numbers and during 1950 1,442 cases were admitted compared with 1,040 in 1949.

The smallpox unit at Robroyston was also in use during the year and 18 cases were admitted to hospital.

Details of notifiable and non-notifiable diseases are given in Appendix Table XV, while Appendix Table XVI illustrates their seasonal prevalence.

GLASGOW : INFECTIOUS DISEASE CASE RATES PER MILLION
1930—1950

	YEAR.																				
	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
A.—Notifiable—																					
Typhus Fever	2	1	69	122	39	164	193	63	51	52	319	72	66	42	30	36	41	33	14	9	17
Enteric Fever and Paratyphoid B	129	102	1	2	2	4	2	4	3	5	—	2	2	4	4	—	—	4	6	7	3
Continued and Undefined Fever	549	609	648	492	555	524	441	478	468	385	381	330	375	399	321	274	284	282	225	173	139
Puerperal Pyrexia	216	209	289	354	286	225	195	294	255	268	232	250	210	264	196	194	179	130	110	103	102
Smallpox	3	—	—	—	—	—	—	—	—	—	—	—	28	—	—	2	—	—	—	—	16
Scarlet Fever	4,555	6,449	8,361	7,593	5,336	3,592	3,801	5,001	3,588	2,625	1,706	1,742	2,964	2,980	3,253	3,254	3,192	3,243	3,521	2,100	1,726
Diphtheria and Membranous Group	2,407	1,937	1,966	2,148	2,374	2,199	1,728	2,081	2,515	2,786	4,724	3,676	3,181	2,792	2,264	1,876	1,356	456	258	138	78
Erysipelas	1,156	1,008	954	1,012	996	903	862	927	859	739	597	612	697	679	537	500	447	430	433	276	256
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	136	167	138	140	85	75	65	94	78	72	416	371	189	118	123	124	211	120	87	91	105
Ophthalmia Neonatorum	755	740	925	807	720	668	623	711	689	632	562	494	642	595	507	311	316	277	237	119	158
Trachoma	23	29	22	18	15	16	11	13	13	9	6	9	10	3	10	8	13	1	4	—	5
Acute Encephalitis Lethargica	29	9	10	12	7	12	11	27	7	4	3	6	4	9	3	4	5	4	5	4	1
Acute Poliomyelitis	3	—	—	5	—	—	—	1	1	1	—	—	2	2	—	—	2	17	1	—	2
Acute Poliomyelitis	21	4	4	31	8	2	23	1	37	4	30	43	6	2	23	7	2	270	5	25	258
Acute Primary Pneumonia	5,894	4,734	6,291	4,392	5,785	5,132	5,143	5,233	4,731	3,119	5,021	5,631	5,041	6,436	5,409	4,644	5,722	4,905	4,255	4,052	3,215
Acute Influenzal-Pneumonia	319	328	607	315	269	360	184	502	102	202	280	143	87	181	86	74	204	80	32	68	37
Malaria	20	12	11	17	21	12	12	12	10	10	46	23	27	14	15	24	61	29	25	13	8
Dysentery	68	73	124	64	59	120	211	244	232	144	331	290	261	419	1,199	1,404	532	252	1,061	1,262	2,156
Infective jaundice	—	—	—	1	—	—	2	3	1	1	1	—	—	—	—	4	—	4	3	9	3
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	1,549	1,564	1,572	1,465	1,475	1,564	1,454	1,477	1,550	1,395	1,737	1,880	2,223	2,658	2,626	2,515	2,613	2,514	2,500	2,548	2,223
Other Forms of Tuberculosis	962	897	874	720	609	600	628	573	621	497	609	602	683	703	639	529	473	465	336	351	335
B.—Not Notifiable—																					
Measles	11,392	14,122	5,094	856	22,056	795	17,826	2,929	14,044	1,296	10,038	1,468	7,943	7,503	6,061	5,726	9,019	3,845	7,326	3,632	6,215
German Measles	154	106	622	1,659	159	375	1,441	185	434	3,360	594	213	402	3,778	684	563	1,016	1,024	1,197	244	2,999
Whooping Cough	5,316	8,469	4,260	5,838	5,321	6,918	3,745	7,782	3,689	5,592	796	10,001	1,124	5,347	3,514	2,643	2,536	4,960	1,534	3,556	4,894
Chickenpox	6,617	7,092	6,517	6,178	5,028	5,139	6,046	5,559	5,626	3,421	1,863	3,726	7,885	5,354	7,157	5,021	4,540	5,048	6,195	3,333	6,367
Others—																					
Mumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pemphigus Neonatorum	14	6	16	13	20	61	67	44	44	24	299	119	115	59	151	71	63	110	54	43	43
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	42,298	48,671	39,375	34,254	51,225	29,460	44,714	33,338	39,618	26,612	39,592	31,707	34,168	40,340	34,815	29,808	32,828	28,504	28,423	22,158	31,368

In an additional Appendix B three tables show the number of Cases of Infectious Disease admitted to and dismissed from the four Glasgow Fever Hospitals and also the deaths from various causes, according to sex and age.

IMMUNISATION CENTRE.

The Immunisation Centre at 20 Cochrane Street was established originally at the request of the Department of Health, and is now maintained on behalf of the Western Regional Hospital Board. It provides intending travellers from the West of Scotland with immunisation against yellow fever, and recently has extended its scope to cover immunisation against certain other infectious diseases likely to be met with by travellers in a foreign country.

The number attending for inoculation against yellow fever has shown a steady increase, a recent feature being the immunisation of whole ships' crews against this disease. Since the Centre was established in 1947, 7,611 intending travellers have been dealt with, and of this figure 2,242 came during 1950.

The extension of the scope of the work to cover also enteric fever, plague, typhus, cholera and smallpox, where the traveller's own doctor is not available or in the case of strangers in the city, has made 1950 the busiest year since the Centre was started. For inoculations against these diseases alone 732 persons made 1,273 attendances during 1950. For all purposes 2,974 people availed themselves of this service in the course of the year under review.

Smallpox.—The outstanding epidemiological event of the year was the introduction of smallpox into the city by an Asiatic seaman, and the following is a report of the outbreak :—

SMALLPOX OUTBREAK IN GLASGOW, 1950.

Between 26th March and 1st April there were admitted to the Smallpox Unit at Robroyston eighteen confirmed, one probable and two suspected cases of smallpox. The original case was an Asian seaman who arrived in this country as a crew passenger on board the S.S. *Chitral* which left Sydney on 21st January, called at Colombo on 8th February, Bombay on 11th, Aden on 16th, remained three days (20th, 21st and 22nd) at Port Said, and arrived in Tilbury on 5th March.

The ship carried 718 passengers and 336 of a crew. As steerage passengers it carried 133 Asian seamen, 52 of whom were a spare crew for the S.S. *Ranee*, a new ship which was being fitted out at Greenock. This crew had left Calcutta on 5th February by train for Bombay and joined the *Chitral* on 11th February.

They were housed aft in 10-berth passenger cabins, as were two other ships' crews, and all three crews mixed during the voyage. These quarters were out of bounds to the passengers, but the Asian seamen cooked their own food in the crew's galley. The men for the *Ranee* left Tilbury on 5th March by coach for Euston Station, thence by the 9.25 p.m. train from Euston to Glasgow, where they were taken to the Indian Seamen's Hostel, Greenhead Street, Glasgow.

ILLNESS OF MOOSA ALI.

The crew of the *Ranee* included one Moosa Ali, a Laccadive Islander. On the night of 8th March he complained to his friends of fever and slight headache. Next morning the fever and headache were still present but wore off during the day. The symptoms returned in the late evening, and he was seen by the Shipping Federation doctor on the following morning, 10th March, when a diagnosis of pneumonia was made. He was admitted to Ward 9, Knightswood Infectious Diseases Hospital, during the afternoon of the same day, and was found to have a temperature of 102°F., a pulse rate of 120 and respirations 32. Chest examination revealed diminished movement over the left lung and dullness to percussion at the base. X-ray examination showed some patchy consolidation at the left upper lobe. Treatment was started with oral penicillin, 60,000 units three-hourly, and by the morning of 11th March his temperature, pulse and respiration rates had settled and no abnormal sounds were detected in the chest. During the night of 11th/12th March the temperature was elevated to 100·2°F., the pulse was 80, tongue moist and clean. By 8 a.m. on the 12th the temperature had settled and was not elevated again during the course of the illness.

In the early morning of 14th March the patient developed a papulovesicular rash on the face and, to a lesser extent, on the trunk, and was transferred to the Isolation Ward (Ward 2) on the same day. The eruption was sparse—a few spots on the forehead, forearms and hands, and also a few on the body, mostly on the back, and one or two on the feet. In addition to the medical staff of the hospital, the patient was examined on 15th March by a senior consultant, who was well experienced in smallpox diagnosis. By then the lesions were vesicular and were rapidly drying up. Apart from those on the forehead, they were superficial and on the back they had already ruptured and had the appearance of chickenpox lesions. They were not exactly at the same stage but there was no evidence of cropping. The patient had four good vaccination scars on his left arm and a history of having been vaccinated three years previously. The hospital consultants were of opinion that the weight of evidence was more in favour of chickenpox than smallpox and diagnosed accordingly.

Following an enquiry from Knightswood Hospital made to the port health section of the department as to the presence of chickenpox on the *Chitral*, the port office, after communicating with London, reported in the negative. This enquiry caused the divisional medical officer to keep the Indian Seamen's Hostel under observation, and on 17th March he himself visited the hospital and examined the patient. By this time the eruption was quite atypical, for the rash was clearing so rapidly that the patient was dismissed on 23rd March, thirteen days after admission and nine days after the appearance of the rash.

THE OCCURRENCE OF THE FIRST WAVE.

On 26th March the medical officer of health was informed by the consultant at Knightswood Hospital that smallpox had broken out in the hospital and that three cases were being removed to the smallpox unit at Robroyston. During the subsequent six days a further seventeen persons were removed as smallpox or suspected smallpox, including staff, patients and visitors to Wards 2 and 9 of Knightswood Hospital. In addition, the visiting physician to the hospital, who looked after Wards 2 and 9, was removed as a suspected case, and also a senior laundrymaid who had no apparent connection other than through fomites with either Ward 9 or Ward 2. One of the visitors was a doctor undertaking a D.P.H. course who saw the original patient on the 14th and 16th March, on one occasion when he was in Ward 9, the other when he was in Ward 2.

The staff removed to the smallpox unit included the sister and one nurse from Ward 9, and four nurses and two part-time nurses from Ward 2. One of the part-time nurses had sickened on 22nd March and had been admitted to Ruchill Infectious Diseases Hospital on 23rd March as pneumonia and was later transferred to Robroyston Hospital on 26th March. The other part-time nurse was admitted direct from her home to the smallpox unit.

One of the patients in Ward 9, a boy aged 12, had been dismissed home on 15th March and was admitted on 23rd March to Belvidere Hospital as a case of cerebro-spinal fever. He was transferred to the smallpox unit on 27th March.

The only patient associated with Ward 2 to take smallpox was a baby suffering from toxoplasmosis admitted from Stobhill Hospital as a case of chickenpox and placed for 36 hours in the same cubicle as Moosa Ali, who was at that time thought to have chickenpox. This child was transferred from Knightswood to Stobhill on 24th March and removed to the smallpox unit on 27th March in view of its very close contact with the original case.

Two other patients (infants) who had previously been treated for gastro-enteritis in Ward 8, Knightswood Hospital, and had been dismissed home, were found to be suffering from a vague illness with an eruption and were also removed to the smallpox unit on 29th March.

The following table shows the association of the 21 smallpox cases with Knightswood Hospital :—

SMALLPOX CASES—ASSOCIATION WITH KNIGHTSWOOD HOSPITAL.

Removed to Smallpox Unit	Ward 9	Ward 2	Ward 8	Others	Total.
Staff	2	6	—	—	8
Patients	5	1	2	—	8
Visitors	1	—	—	—	1
Laundrymaid ...	—	—	—	1	1
Visiting Physician	—	—	—	1	1
D.P.H. Student ...	—	—	—	1	1
					<hr/> 20
Asian Seaman ...	x	x	—	—	1
					<hr/> 21
					<hr/> <hr/>

The D.P.H. student was at first admitted to Hairmyres Hospital, Lanarkshire, on 27th March with the diagnosis of haematemesia and transferred to the smallpox unit on 31st March when the real cause of her illness was diagnosed. She died of haemorrhagic smallpox on 1st April.

Moosa Ali, who had been dismissed from Knightswood to the Seamen's Hostel on 23rd March, was also removed to the smallpox unit on 27th March at 2 a.m.

Knightswood is a modern infectious diseases hospital with some 200 beds. The pavilions in which the smallpox cases occurred were a ward of two sections each containing 15 beds (Ward 9) and an isolation ward (Ward 2). All the patient cases in Ward 9 were in the acute end of the pavilion where Ali had been a patient, and the only patient case in Ward 2, the isolation ward, was the baby who had been placed in the same cubicle as Ali for 36 hours.

PARTICULARS OF ADMISSION TO SMALLPOX UNIT.
PATIENTS ASSOCIATED WITH KNIGHTSWOOD HOSPITAL.

Admitted from	Ward 9	Ward 2	Ward 8	Others	Total.
Knightswood Hospital ...	4	4	—	1	9
Ruchill Hospital ...	—	1	—	—	1
Belvidere Hospital	1	—	—	—	1
Stobhill Hospital ...	—	1	—	—	1
Hairmyres Hospital	—	—	—	1	1
Home	3	1	2	1	7
					<hr/> 20
Seamen's Hostel ...	x	x	—	—	1
					<hr/> 21

PROCEDURE IN HOSPITAL.

Following notice of the outbreak, a medical officer of the department visited Knightswood Hospital to obtain detailed information and to collaborate with the hospital authorities. The hospital was closed for admissions, dismissals and visiting, and all staff, patients, official and other visitors were vaccinated. Disinfection of all beds, bedding and linen from Wards 2 and 9 and also from Ward 7, where one of the nurse patients had been warded, was put in hand and nurses who had been in contact with recent suspects carried out personal disinfection—bathing, washing hair, changing linen and uniform.

A list was prepared of patients in Wards 2, 9 and 7, giving dates of admission and, where necessary, of dismissal or death, together with a note of any known visitors to the wards. A list of both full-time and part-time staff living outwith the hospital was compiled in order that no one should escape vaccination and surveillance. Those who did not report were followed up by the department, vaccinated and put under surveillance. The ambulance driver and nurse who brought Moosa Ali to Knightswood Hospital on 10th March were included in this follow-up.

Similar arrangements were made at Ruchill and Belvidere Hospitals where a Knightswood part-time nurse and a small boy, recently a patient in Ward 9, Knightswood Hospital, were found to be suffering from smallpox. The arrangements at Hairmyres Hospital were supervised by the medical officer of health for the County of Lanark.

The following table shows the dates of removal to hospital of the cases believed to be suffering from smallpox :—

DATES OF REMOVAL TO HOSPITAL OF SMALLPOX CASES.

Date of Removal.	From Hospital.	From Home or Hostel.
By 9 a.m. on—		
Monday, 27th March	5	1
Monday, 27th March	1	4
Tuesday, 28th March	1	—
Wednesday, 29th March	3	1
Thursday, 30th March	1	2
Friday, 31st March	1	—
Saturday, 1st April	1	—
	<hr/> 13	<hr/> 8
	<hr/> 21	<hr/>

No further cases of smallpox occurred after 1st April.

ACTION TAKEN.

The following procedure was carried on simultaneously :—

(1) *At the Hospitals.*—The divisional medical officers maintained personal contact with the hospital authorities, checking doubtful points, cross-checking information concerning the movements of patients, and adding to the list for surveillance the names of any persons coming forward as visitors to the hospital.

At Knightswood the movement of hospital staff was discouraged and the use of public transport reduced to a minimum. Off-duty staff were restricted to exercise within the grounds or in the less frequented roads in the neighbourhood and were instructed to change into fresh civilian clothes if a journey into town became necessary. Letters and parcels for despatch by patients and staff were exposed for twenty minutes over a formalin vapour lamp.

Vaccination was offered to the inmates of the homes or households visited during the previous fortnight by any member of the staff off duty, and to meet their needs a vaccination centre was set up near the hospital gate-house, at which some 2,000 persons were vaccinated. Among the non-resident staff of the hospital brought under surveillance were radiographers, dispensers, typists, clerks, stewards, porters, gardeners and engineers, and among official visitors to the hospital, social workers, clergymen, librarians, vanmen, refuse and brock collectors.

Both graduate and undergraduate students had attended classes at the hospital, and considerable difficulty was experienced in making contact with the undergraduate students during the Easter vacation, as it was found that some of the students had left their only known address. The assistance of the B.B.C. was sought and a message was broadcast on 29th March for five missing students and a Knightswood Hospital maid who had left the hospital on 25th March and had failed to return. By noon on 30th March the maid and three of the students had been located and all were vaccinated and kept under surveillance. The remaining two students were found by noon the following day.

In view of the widespread nature of the outbreak, the co-operation of the press was invited and a request made to publish the names of the hospitals and wards affected and also a note of the dates when infection was present. All members of the public who had visited the hospitals' wards during the times mentioned were asked to regard themselves as close contacts and advised to report immediately to the health department.

The graduate students, 13 in number, were members of the D.P.H. Class and all had seen the original patient on two occasions, on the 14th and 16th March. Immediate steps were taken to contact all students who had given telephone numbers and letters were sent to the students who lived outside the city and also to the medical officers of health of their areas. One of the students had already been taken ill and had been admitted on 27th March to Hairmyres Hospital.

(2) *In the District.*—The main duties of surveillance of contacts fell on the divisional staffs—medical officers, sanitary inspectors and assistant inspectors. Each division maintained a register of contacts and made certain each evening that every contact had been inspected during the day. In all, some 2,000 contacts were seen daily as well as those members of non-resident staff of the hospitals who had not reported at the institutions during the day.

Special arrangements were made to notify out to the appropriate medical officers of health the movements of contacts leaving the city, even for short periods, and as the period of surveillance included the Easter week-end there was much correspondence. Some contacts were seen by three or more medical officers of health according to their itineraries.

The Sister of Ward 9, Knightswood, who sickened on 24th March, travelled by 'bus on the same day to visit relatives in Fife and returned on the 26th, and

later that day was admitted to the Smallpox Unit. The medical officers of health of the counties and towns through which the outward and inward 'buses passed were notified and a public appeal was made for possible contacts on city and long-distance 'buses to come forward.

The small boy who had been admitted to Belvidere Hospital on 23rd March had attended, while in the initial stages of smallpox, St. Columba's School, a primary school with some 1,100 children on the roll. The education health service of the department took immediate steps to vaccinate pupils and teachers and also any other persons who visited the school during the period. All children were supplied with consent forms on the afternoon of Monday, 27th March for signature by their parents. The following day the vaccination of the entire school was carried through without a hitch.

Where a case was removed from home to the Smallpox Unit, the home contacts and their neighbours were vaccinated and, in the case of tenemental property, also tenants and their families living in adjoining properties. On the evening of the day of removal of the patient, the home contacts were transferred to special accommodation in Belvidere or Shieldhall Infectious Diseases Hospitals and retained overnight while the house was being disinfected—clothing, bed clothes and furnishings were disinfected or steam sterilised at the local authority disinfecting stations where some 10,000 articles were treated during the outbreak. Papers and other disposable effects were burned. The following morning the contacts were permitted to return home after the clothing in which they had come to hospital had been disinfected and the household and personal articles returned by the disinfecting stations.

The employees and customers of stores or businesses known to have been visited by smallpox patients on the day before or day of sickening were notified to come to the department for vaccination and surveillance. Particular attention was paid to chance or occasional visitors to the homes of the patients, such as door-to-door salesmen, meter readers, tradesmen, chimney sweeps, roundsmen, and also district nurses, midwives or home helps attending members of the patient's family or adjoining families.

(3) *The Public.*—A vaccination centre was opened in the health department on 27th March for the registration and vaccination of close or chance contacts of known cases. In view of the widespread nature of the infection the medical officer of health decided to offer vaccination to all members of the public desiring it, and arrangements were made for the centre to remain open from 9 a.m. to 9 p.m. each day during the emergency. The staff of the entire health and welfare department was vaccinated and a special effort was made to vaccinate all public servants and the employees of transport undertakings. Assistance was given where possible to organisations requiring their staffs vaccinated.

The following table illustrates the growing realisation by the public of the gravity of the situation and the necessity for vaccination :—

NUMBER OF PERSONS VACCINATED AT PUBLIC HEALTH CENTRE.

March	27	...	...	...	...	250
"	28	...	...	...	...	830
"	29	...	...	...	...	1,027
"	30	...	...	...	...	1,367
"	31	...	...	...	...	1,243
April	1	...	...	...	...	2,600
"	2	...	...	...	...	13,350

During Sunday, 2nd April, a very large queue gathered at the centre and additional medical, nursing and clerical staff were called in by telephone and taxi and the number of vaccination stations increased to six. The catering section of the department provided meals for the staff whenever a moment could be spared from duty. This most welcome service was continued during the course of the outbreak on Sundays and on weekdays and played a considerable part in countering the fatigue of long hours of duty.

On 3rd April five more centres were opened in other parts of the city, staffed mainly by doctors, nurses, welfare officers and clerical staff of the department, with the assistance of some part-time medical officers, medical students and Red Cross nurses.

Many members of the public took the opportunity to obtain international certificates of successful vaccination, and arrangements were made for the examination of results and for the issue and franking of certificates.

An important feature of the vaccination returns was the large number of infants vaccinated for the first time, and at the child welfare centres alone the number of infants brought for vaccination increased 30-fold.

General practitioners also met a very considerable demand for vaccination, and arrangements were made for the provision of adequate supplies of lymph. With the very complete co-operation of the Lister Institute and the Department of Health for Scotland, some 700,000 doses were obtained during the course of the outbreak. To meet one urgent demand, the Department of Health for Scotland and the Ministry of Health arranged with the Air Ministry to fly up supplies by service plane.

Some 162,000 persons were vaccinated at the department's centres between 27th March and 21st April when the last centre closed down. In addition, 220,000 doses of lymph were supplied to general practitioners and 20,000 doses to factories. In the course of smallpox prevention duties a further 14,000 vaccinations were carried out by the staff of the department. In view of the sudden cessation of the outbreak, some 300,000 doses were not utilised, and this amount has been put into cold store at -10°C .

Various methods of vaccination were carried out, including the multiple puncture and the single and multiple linear scratch. Where close contacts were involved, vaccination was carried out on two sites.

(4) *Administration*.—Immediate contact was made on the 27th March with the physician superintendent at Robroyston Hospital, and information was obtained twice daily on the clinical condition of the patients, final diagnoses and various other matters of administrative detail. Each evening the medical staff of the department met to discuss the epidemiology of each case.

A meeting was held with the senior staff of the regional hospital board regarding the steps to be taken for the provision of added accommodation in the smallpox unit in case the outbreak should develop. The work of adaptation and alteration at Robroyston Hospital was undertaken by the manager of works of the health department and was completed within 56 hours.

All hospitals in the western region were closed to visitors on 1st April and remained closed until Saturday, 22nd April.

Owing to the public interest, press bulletins were issued at noon and at 9 p.m. each day, and press conferences were held in the evenings. The B.B.C. co-operated with the department in making requests for the attendance of possible contacts and the medical officer of health and acting convener broadcast concerning the outbreak. An information service was made available at the department and innumerable questions were answered.

General practitioners were circularised and invited to request consultation with medical officers of the department in cases of doubt. These consultations were carried out by the divisional and assistant divisional medical officers who saw in all some 800 patients. All except about 12 were negatived either at once or after a short period of observation. In the few cases where the diagnosis was in doubt the physician superintendent of Belvidere Hospital, who has had a very extensive experience of smallpox, acted as an additional consultant. The ultimate diagnoses were, in the main, chickenpox, measles, German measles, erythema multiforme and vaccinia, generalised, contact and auto vaccination. No case of post-vaccinal encephalitis occurred.

CONDITION OF PATIENTS AND VACCINAL STATES.

Of the 21 patients admitted to the smallpox unit, 18 (including Moosa Ali) were definitely confirmed as suffering from smallpox. In the case of the two babies associated with Ward 8, the diagnosis was not confirmed, and in one case that of the visiting physician, the diagnosis was probably smallpox, although this patient did not develop a papulo-vesicular rash.

All the cases of confirmed smallpox, even those with a modified attack and sparse eruption, had a severe constitutional disturbance and in convalescence still showed the effects of the illness.

Prodromal rashes, which were present in the case of No. 4 and No. 9, disappeared to be replaced later by a sparse papulo-vesicular rash of smallpox. In No. 9 the rash was at first thought to be caused by belladonna, which had been prescribed in the early stages of illness.

Details of the illnesses of the patients are shown in the table on the opposite page.

The degree of severity of the attack is shown in the following table :—

				Number.	Died.
Confirmed—					
Modified	...	...	...	11	1
Severe	...	...	...	1	—
Semi-confluent	...	...	...	1	—
Confluent	...	...	...	4	4
Haemorrhagic	...	...	...	1	1
Probable	...	...	...	1	—
Not confirmed	...	...	...	2	—
				<hr/> 21	<hr/> 6

All but six of the confirmed cases were successfully vaccinated either in infancy or within the first four years of life. These six unvaccinated or unsuccessfully vaccinated patients all died of smallpox. The remaining patients had good vaccination scars from infancy and some had been revaccinated in later years. In the main their attack of smallpox was modified—in some cases much modified—and showed a sparse eruption.

The case of the visiting physician is one that has given rise to much thought and discussion. He sickened on 25th April and the same day developed an urticarial rash on the lower limbs. This eruption was thought to be due to the consumption of some unusual article of diet but no dish partaken of that day had previously caused this disturbance. By 27th March the patient was distinctly ill, temperature 101, and a raised regular rash now covered the whole of the body except the scalp and was causing extreme discomfort owing to itchiness. The

DETAILS OF CASES

No.	Initials	Age	Sex	Staff, Patient or Visitor	Associated Ward	Date of Onset of Rash	Admitted to Snallpox Hospital	Removed from	Extent of Rash	Primary Vaccination, Recent Vaccination and Result	Remarks	No.
CON 1	FIRMED M.A.	36	M.	Orignal Patient	9 & 2	14/3	26-27/3	Seamen's Hostel (Dis. Knightswood, 23/3)	Modified, sparse	4 vaccination scars—good	—	1
2	M.B.	28	F.	Hospital Sister	9	26/3	26/3	Knightswood Hospital	Modified, sparse	Infancy—scar 3d. piece size. 1942—successful	—	2
3	C.W.	20	F.	Nurse ...	2	25/3	26/3	Knightswood Hospital	Confluent ...	Infancy, 3 times—unsuccessful. No evidence	Died, 10/4/50	3
4	J. T.	30	F.	Part-time Nurse	2	25/3	26-27/3	Ruchill Hospital (Ad. 23/3)	Modified, sparse	Infancy, good scar 1/- size ...	—	4
5	T. W. R.	51	M.	Patient	9	26/3	26/3	Knightswood Hospital	Modified, sparse	Infancy, good scars ...	—	5
6	I. C.	12	M.	Patient	9	25/3	26-27/3	Belvidere Hospital (Ad. 23/3)	Discrete ...	Infancy, scar 1d. size ...	—	6
7	J. C.	35	M.	Patient	9	28/3	26-27/3	Home ...	Modified, sparse	Infancy, good scar ...	—	7
8	M. McB.	9	M.	Patient	9	29/3	27/3	Home ...	Modified, sparse	Infancy, scar 3 in. diameter	Died, 3/4/50.	8
9	M. C.	11/12	F.	Patient	2	31/3	27/3	Stobhill Hospital (Re-ad. 24/3)	Modified, sparse	Unvaccinated ...	Also suffered from toxo-plasmosis	9
10	J. McL.	22	F.	Nurse ...	9	27/3	28/3	Knightswood Hospital	Severe, discrete	Vaccinated at age 4, scar 2/- piece size. 1946, unsuccessful	—	11
11	M. C.	32	F.	Part-time Nurse	2	31/3	29/3	Home ...	Modified, sparse	Infancy, good scar ...	Died, 9/4/50	12
21	M.D.	19	F.	Nurse ...	2	29/3	29/3	Knightswood Hospital	Confluent ...	Said to have been vaccinated in infancy, no scar visible	—	13
13	A. H.	83	M.	Patient	9	29/3	29/3	Knightswood Hospital	Modified, sparse	Infancy, good scars ...	Died, 8/4/50	14
14	I. L.	20	F.	Laundrymaid	—	29/3	29/3	Knightswood Hospital	Confluent ...	Unvaccinated ...	—	15
15	C. McL.	20	F.	Nurse ...	2	29/3	29-30/3	Knightswood Hospital	Modified, sparse	Vaccinated at age 2, 2/- size scars	—	16
16	M. McG.	43	F.	Visitor	9	29/3	30/3	Home ...	Severe, discrete	Vaccinated infancy; scar 1/- size	—	17
17	J. F.	29	F.	D.P.H. Student	9 & 2	28/3	31/3	Hairmyres Hospital (Ad. 27/3)	Malignant, haemorrhagic	Unvaccinated ...	Died, 1/4/50	18
18	M.L.	17½	F.	Nurse ...	2	31/3	31/3-1/4	Knightswood Hospital	Confluent, with haemorrhage	Vaccinated infancy 3 times unsuccessfully. 1949, twice unsuccessful. 1950, once unsuccessful	Died, 7/4/50	19
PROBABLE 19	T. A.	40	M.	Visiting Physician	9 & 2	—	27/3	Home ...	Much modified; no rash other than prodromal	Infancy, 1942, 1946 ...	—	—
Not CONFIRMED	L. McA.	3/12	F.	Patient	8	—	27/3	Home ...	—	Unvaccinated ...	—	—
—	I. McG.	7/12	F.	Patient	8	—	29/3	Home ...	—	Unvaccinated ...	—	—

eruption was mostly urticarial and the only vesicles visible were two on the right ulnar styloid and two at the upper end of an appendix scar. The patient was seen on 27th March by two consultants who, in view of the recent contact with smallpox, arranged for his admission to the smallpox unit.

Anti-histamine drugs had no effect on the rash and on the morning of the 28th the temperature and pulse rate had come down, but the sites of the penicillin injections given earlier in the day were showing giant urticarial weals and growing larger. The rash was intensely itchy and relief was obtained only on sponging with 1 in 20 carbolic lotion. The eruption slowly subsided and disappeared within the next 48 hours. The case was most interesting and has been listed as a probable case of smallpox due to the period which had elapsed since exposure and the nature of the illness. Vaccination on admission to the smallpox unit showed a reaction of immunity within 36 hours.

The other unusual case is the baby, M.C. (No. 9). This child suffered from toxoplasmosis and was under treatment in Stobhill General Hospital. On 14th March she developed chickenpox and was transferred to Knightswood where she was placed in Moosa Ali's cubicle in Ward 2 for 36 hours at the time when he was regarded as suffering from chickenpox. On 15th March she was transferred to a single cubicle in the same ward where she remained for the rest of her time in Knightswood until transferred back to Stobhill Hospital. During the whole of this period the child was unvaccinated. The patient was removed to Robroyston on 27th March and became unwell on the 28th. A rash suggestive of smallpox appeared on the 31st; it remained sparse, but both the smear and culture tests were positive for smallpox. The patient died on 3rd April, her death being not wholly due to smallpox. It is unusual to find an unvaccinated person in close contact with smallpox developing other than a severe or confluent attack of the disease.

The laundrymaid, No. 14, dealt with the checking and sorting of soiled linen in the laundry. No contact could be established between this patient and Wards 9 and 2 during the infective periods, but contact with fomites was established. On 14th March Moosa Ali, wearing nightshirt, blanket and nightingale, was transferred from Ward 9 to Ward 2 by ambulance. On arrival at Ward 2 his nightshirt was changed, the Ward 9 nightshirt being placed in the soiled linen bin for removal to the laundry on the morning of 15th March. This nightshirt would be among the clothing sorted by the laundrymaid on 15th March, and as she sickened exactly 12 days later, on 27th March, it is the most probable source of her infection.

The source of infection of the visitor to Ward 9 (No. 16) is also interesting. She went regularly to see a friend who suffered from pneumonia, and visited the ward on 12th March when Moosa Ali was a patient there and again on 15th March, by which time he had been transferred to Ward 2. She sickened on 27th March, giving an incubation period of 15 days from direct contact on the 12th. Efforts were made to trace any source of residual infection in Ward 9 on 15th March, and after persistent investigation it was confirmed that she had on 15th March, taken away a pair of grey socks worn by her friend during his convalescence. These socks may have been the source of her infection and if so the incubation period in her case becomes also 12 days.

The diagram on page 80 shows the sickening and eruption dates in the eighteen confirmed cases and the one probable case.

SOURCE OF INFECTION OF MOOSA ALI.

There has been considerable speculation as to the source of Moosa Ali's infection, and much attention has been given to the details of his illness and to the journey of the *Chitral* from Bombay. It is possible that the source of his infection was Port Said, as there was much coming and going while the *Chitral* was tied up on 20th, 21st and 22nd February, and some of the *Ranee* men, not including Moosa Ali, went ashore. If Port Said was the source, then the incubation period of Moosa Ali's illness would be at least fourteen days. No record, however, has been found

of smallpox in Port Said either before or subsequent to the arrival of the *Chitral*, although one case of smallpox was reported in the frontier districts of Egypt between 15th and 21st January and another, an imported case, at Suez on 18th February.

The other possible sources of infection are Calcutta, Bombay and Aden, all of which require the occurrence of missed cases on the *Chitral*. Considerable numbers of cases of smallpox occurred in both Calcutta and Bombay during the first three months of 1950, but at Aden the only three cases mentioned in the past three months are two cases landed on 11th March and one landed on 5th April, i.e., all imported cases.

Illness did occur among the crew of the *Ranee*. One man developed a " fever " with a temperature of 102 F. on 17th February and was four days in the ship's hospital, being finally diagnosed as constipation, while after the ship left Port Said two of the *Ranee's* crew received medical attention, one for earache on 27th, the other for gastro-enteritis from 28th February to 2nd March.

Wherever Moosa Ali's infection originated, it does appear likely, in spite of the occurrence of only one known case, that there were on the *Chitral* some missed cases of smallpox, probably in a highly modified form.

LESSONS TO BE LEARNED BY STUDY OF OUTBREAK.

(1) There exists a very real difficulty in differentiating clinically between varicella in an adult and variola modified by previous vaccination, especially when dealing with Asiatics.

(2) It is imperative to regard an eruption in an Asiatic showing any varioloid feature whatever as " administrative smallpox " and to carry out timely vaccination of all contacts.

(3) It is a vital necessity to protect the nursing staffs of all hospitals by adequate vaccination prior to recruitment and at regular intervals thereafter.

(4) The value of infant vaccination has been established, and the 30-fold increase in the number of infants vaccinated during the outbreak indicates both the serious position resulting from the repeal of compulsory vaccination and the willingness of parents to have their children vaccinated in the presence of danger.

(5) The services of the press and B.B.C. have proved invaluable in tracing contacts and presenting to the public accurate information concerning the outbreak.

(6) All the fatal cases occurred in unvaccinated or unsuccessfully vaccinated persons, and, conversely, those patients survived who had been successfully vaccinated even although only in infancy.

(7) It is of fundamental importance to sustain an efficient public health service of knowledgeable and experienced medical officers, a service still available but threatened with extinction due to failure to recognise preventive medicine as an indispensable element in an integrated National Health Service.

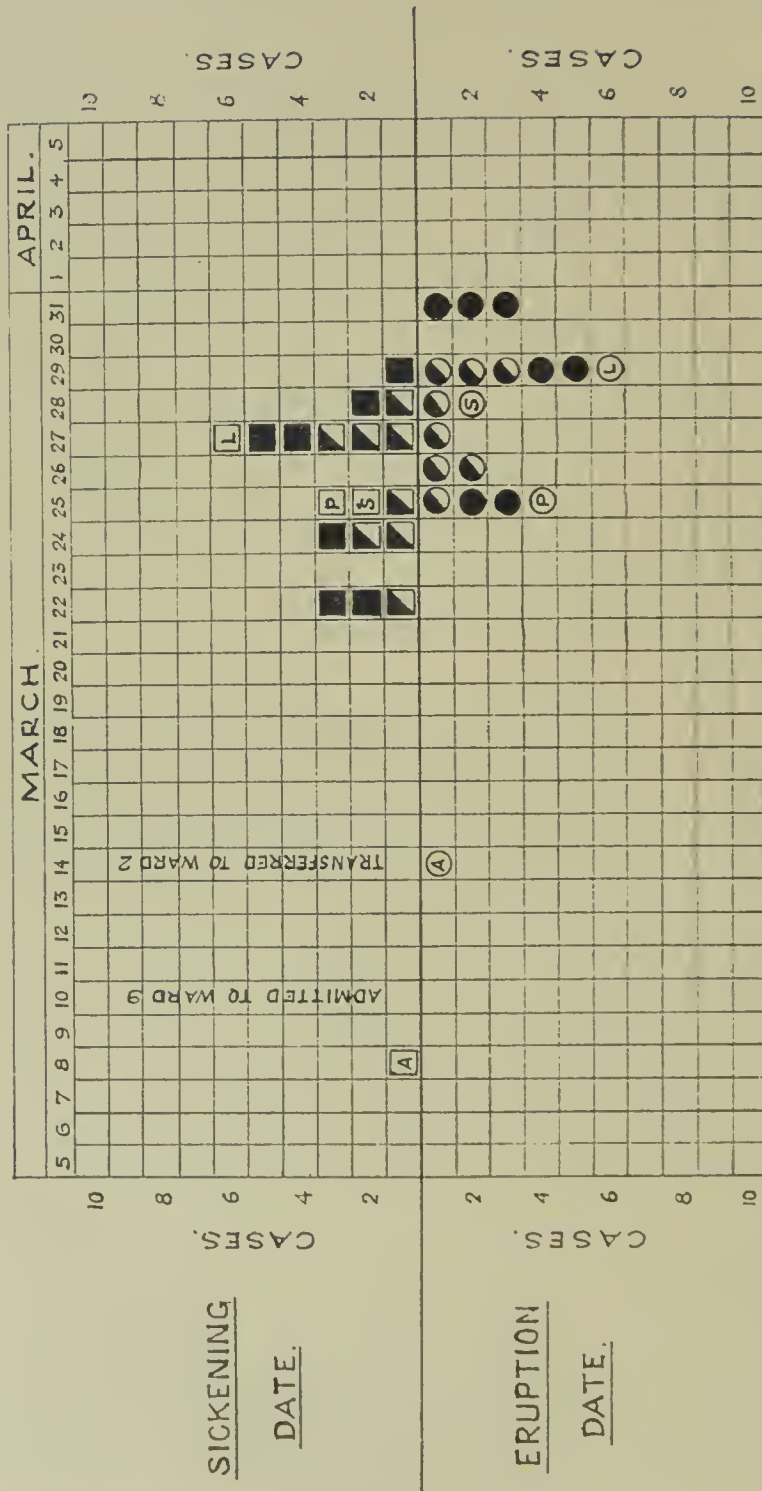
(8) Nothing that has occurred in this outbreak has lessened our conviction that the control of infection in an area is best served by the co-ordination of fever and tuberculosis hospitals in one group under the direct control of the medical officer of health.

We wish to acknowledge the courtesy and assistance rendered to our department by the press and the B.B.C. ; also by our medical colleagues in all branches of the profession, especially the physician superintendents of the infectious diseases hospitals and the smallpox unit, and Dr. McClean of the Lister Institute.

We wish also to thank all members of the health and welfare committee of the Corporation of Glasgow for the support and encouragement given to us during the outbreak.

SMALLPOX - GLASGOW 1950.

DATES OF SICKENING AND APPEARANCE OF RASH.



LEPROSY.

Two cases of leprosy, both in coloured men, came under review during the year. The first was an African student who had been resident in Glasgow for eighteen months and who developed a nodular eruption of his face involving a butterfly area on either side of the nose. Nasal biopsy was reported positive by the skin department for the bacillus lepra, but in hospital while under treatment only negative results were obtained from nasal swabs. Treatment, which covered a period of seven weeks, was with the anti-tuberculosis drug sulphethrone.

The second was a Pakistan seaman who arrived at London in January, 1950, and was transferred from a seamen's home to a fever hospital at the end of February, certified to be suffering from leprosy. This diagnosis was reached on account of the presence of nodules on his legs and feet, hands, ears, nose and brow, and confirmation was obtained by the recovery of the bacillus lepra from a swab taken from the nasal septum which was also involved. It was stated that the disease had been only present for some eight weeks, but the appearances were suggestive of a somewhat longer duration. On account of its chronic nature he was transferred by the shipping company back to India for treatment.

By an Order of 1st August, 1951, leprosy becomes a notifiable disease as from 1st September, 1951.

TYPHOID, PARATYPHOID AND DYSENTERY.

Typhoid.—Only five cases were registered. Two of there were institutional cases, namely, a seaman removed from a ship and a woman admitted to a general hospital suffering from typhoid contracted in a county area. The remaining cases were a girl aged 3 and two boys aged 15, who all sickened during the third quarter. The boys had previously picnicked as members of separate parties by the same stream in the country on the same day; but there were several days between their dates of sickening and no source of infection was found.

Paratyphoid.—This disease also continued at a very low level, as there were only 13 cases. Two of these were institutional and the others came from the Central, Eastern, and South-Western Divisions. The figures include an entire family consisting of four persons who were registered in December. There were no deaths from typhoid or from paratyphoid.

Bacillary Dysentery.—There were 2,372 cases, a larger number than in any previous year. The prevalence of dysentery began to be high in the last two years of the war. It fell for the next two years but has again been high during the past three years. The majority of the year's cases came from the Eastern and Northern Divisions, the worst wards being Dalmarnock and Calton with a total of 452 cases. The numbers of home and institutional cases and their seasonal incidence are shown in the following tables :—

		1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
Home Infections ...	...	307	735	538	635	2,215
Institutional ...	...	27	19	22	87	157

It is seen that the prevalence was still very high at the end of the year. The proportion notified from institutions was remarkably low. The number of institutions involved was 24; and three of these contributed over half the institutional total. A convalescent home for children had a small Flexner outbreak at the beginning of the year and a larger Sonne outbreak at the end of the year. An institution for homeless children was the scene of a fairly big Sonne outbreak in the last quarter; and in Foresthall cases of dysentery, especially Sonne, were detected on admission at various dates. The age incidence of the disease was as follows :—

			—1 Year.	—5 Years.	—15 Years.	—55 Years.	55+ Years.	Totals.
Home Infections ...	...	...	153	1,173	499	349	41	2,215
Institutional ...	...	...	8	77	31	27	14	157

The group aged 1-4 years was still the most susceptible but it will be seen that there were also many cases among infants. In the Corporation's day nurseries and residential institutions for children it has been for several years a routine to take faecal specimens or rectal swabs from children enrolled or admitted. It is now not uncommon to get positive reports regarding children later classed as sporadic ambulant cases or as sporadic symptomless carriers. Without the admission test these would not be detected until secondary cases had occurred. The admission test for dysentery is therefore a very useful procedure in children's institutions. There were five deaths from dysentery during this year; all but one of these were of elderly persons.

SCARLET FEVER.

In 1950 there were 1,899 cases registered compared with 2,331 during the preceding year. This is only 25 more than the lowest figure recorded during the past 32 years, namely, 1940, at which time a large proportion of the child population had been evacuated from the City. The total number treated in hospital was 1,428, while 471 were nursed at home. Thus 24.8 per cent. were cared for at home, but the fact that 1,428 cases was the lowest number ever to be treated in hospital is of the utmost significance. In view of the present high and ever-rising cost of hospital treatment this low admission rate is of economic as well as of statistical importance, especially so when one remembers some of the high hospitalisation rates of the past 25 years.

The disease is still one affecting largely the school population and almost 60 per cent. of the cases occurred in children between 5 and 15 years. The seasonal prevalence is given in Appendix Table XVI. The heaviest incidence of the disease was recorded in Ruchill Ward where there were 116 cases, followed by Townhead with 85 and Mile-End with 83, all districts with large child populations.

The continuing mildness of the disease is shown in the fact that only one death was recorded during the year. This is the lowest on record apart from 1946 when only one death was also recorded.

ERYSIPELAS.

This disease has shown a steady decline in recent years and the number registered in 1950, 282, is a new low record. There were more cases among females, 171 compared with 111 males. The respective figures for the previous year were 306 (141 males and 165 females).

Mortality was also low, the same number of deaths, 2, being recorded as in 1949. (Under the new International Classification of Deaths introduced in 1950, this disease no longer appears as such in the Short List but is now included in the group "Other Infective and Parasitic Diseases.")

The decline in mortality in recent years is shown in the following table :—

Deaths				Deaths			
1929	...	...	52	1947	...	...	4
1930-39 (average)	...	46		1948	...	...	5
1940-45 (average)	...	8		1949	...	...	2
1946	...	...	13	1950	...	...	2

PUERPERAL FEVER AND PYREXIA.

As in previous years these conditions have been discussed in the section "Maternity and Child Welfare" (page 66). As a result of alterations in the International Classification of Causes of Death, deaths from these two infections no longer appear under separate heading in the "Short List" but are now included in the group "Complications of Pregnancy, Childbirth and the Puerperium." The figures for 1950 are not therefore comparable with those of previous years.

DIPHTHERIA.

Nothing has been more remarkable in the history of preventive medicine than the progress made in the control and near eradication of diphtheria. This year for the first time there have been no recorded deaths from the disease and the number of verified cases 86 compared with 154 for the previous year, is little more than one per cent. of the total for 1940 when the diphtheria immunisation campaign began. This abolition of mortality and continuing lowered incidence is all the more remarkable in that it has occurred in the relatively short space of ten years. It can only be attributed to the large number of children protected by immunisation in the past few years and to the cumulative effect of the continuous campaign against diphtheria.

The following simple table illustrating the case incidence and mortality is of lasting and historical interest :—

Year.		Cases.	Deaths.
1940	... ..	5,190	220
1941	... ..	4,039	155
1942	... ..	3,325	90
1943	... ..	2,919	81
1944	... ..	2,377	62
1945	... ..	1,970	33
1946	... ..	1,458	37
1947	... ..	502	13
1948	... ..	286	8
1949	... ..	154	5
1950	... ..	86	—

The seasonal incidence of the disease given in Appendix Table XVI shows that despite the small numbers occurring monthly a tendency towards higher rates during the cold months of the year is still evident. The proportion of the cases occurring in the young age groups differs little from previous years and 88 per cent. of all cases still occur in those of school age and under. As far as the geographical

incidence of the disease is concerned it is remarkable that in 12 wards no cases occurred this year and that no single ward showed any numerical preponderance of cases.

The following table shows the progress of the immunisation campaign during the past four years :—

	No. of Children Immunised.			No. of Reinforcing Doses.		
	—5 years.	+5 years.	Total.	—5 years.	+5 years.	Total.
1946	8,745	3,734	12,479	61	1,723	1,784
1947	10,560	10,143	20,703	32	4,809	4,841
1948	12,701	9,819	22,536*	691	6,959	7,657*
1949	11,403	6,106	17,509†	65	24,283	24,348
1950	7,624	5,771	13,423‡	84	19,758	19,845†

* Age not stated—16.

† Age not stated—14.

‡ Age not stated—28.

* Age not stated—7.

† Age not stated—3.

During the period July to October when acute poliomyelitis was prevalent it was considered advisable to discontinue the immunisation campaign and to this extent the 1950 figures are not comparable with those of the preceding years.

The same restriction applied to the issue of birthday letters sent to parents of children who have reached their first birthday and those sent to parents of toddlers known to health visitors to be unprotected. No letters were issued during the three months July to September, but the response to those issued later in the year was satisfactory.

	Letters Sent.		Total.	Number Immunised under 5 years of age.
	Infants.	Toddlers.		
1946	5,686	5,814	11,500	8,745
1947	6,846	8,210	15,056	10,560
1948	7,490	8,972	16,462	12,701
1949	6,204	10,030	16,234	11,403
1950	5,044	8,371	13,415	7,624

DISEASES OF THE CENTRAL NERVOUS SYSTEM.

Cerebrospinal Fever.—During the year there were 115 cases, a slight increase on the 101 registered in 1949. The distribution was fairly general throughout the city with the highest ward incidence in Govan (13), Shettleston (8), Mile-end (7), and Townhead (6).

The seasonal incidence was as follows :—

				1950.	1949.
1st Quarter	...	...	...	34	36
2nd Quarter	...	...	...	33	16
3rd Quarter	...	...	...	20	15
4th Quarter	...	...	...	28	34
				<hr/> 115	<hr/> 101
				<hr/> <hr/>	<hr/> <hr/>

Cases were more numerous among males, especially between the ages of one and five.

In the Short List of the new International Classification of Causes of Death introduced in 1950 this infection now appears under the heading "Meningococcal Infections" and during 1950 13 deaths were so recorded. This compares with 9 deaths in 1949 and 15 in 1948 from Cerebrospinal Fever as then classified.

ACUTE POLIOMYELITIS AND ACUTE POLIOENCEPHALITIS.

A further outbreak of infantile paralysis in 1950 led to the registration of some 289 confirmed cases, and there thus falls to be recorded an outbreak almost equal in size to that of 1947 when 319 new cases were registered.

Though there are many points of similarity between the two outbreaks, there are also many differences, the chief of which is that the outbreak of 1950 was milder in nature and affected a somewhat higher proportion of the younger children.

Both exhibit features which are now regarded as classical of poliomyelitis in that it is a virus infection, usually of the pharyngeal type, reaching a peak of incidence in the summer and autumn months, affecting mainly children, particularly of the pre-school age group and rarely involving more than one person in each household with paralysis yet manifestly involving a considerable proportion of others with an "abortive" attack and presumptively affecting many more with clinically unrecognisable infection.

The yearly incidence of infection in Glasgow was set out for the period 1928-1947 in the 1947 report, but might be restated here to exhibit what appears to be a three-yearly phase of infection.

Year.	No. of Cases.	Year.	No. of Cases.	Year.	No. of Cases.	Year.	No. of Cases.
1928 ...	121	1934 ...	9	1939 ...	4	1945 ...	7
1929 ...	27	1935 ...	2	1940 ...	34	1946 ...	4
1930 ...	25	1936 ...	26	1941 ...	47	1947 ...	319
1931 ...	4	1937 ...	2	1942 ...	8	1948 ...	7
1932 ...	4	1938 ...	43	1943 ...	3	1949 ...	28
1933 ...	40			1944 ...	25	1950 ...	289

Notifications received resulted as follows :—

Notified as			No. of	Final Diagnosis.		Diagnosis
			Notifications.	Polio- myelitis.	Polio- enceph.	Altered.
Poliomyelitis	...	...	341	224	2	115
Polioencephalitis	...	...	3	—	1	2
Other Diseases	...	...	62	60	2	—
			<hr/>	<hr/>	<hr/>	<hr/>
			406	284	5	117

Of the 289 confirmed cases 11 were notified by general hospitals in the city to which they had been admitted from home addresses outwith the city and they could not rightly be said to have contracted their infection in Glasgow. As full details of their epidemiology are not available they are excluded from the further portion of this report which now refers to 278 confirmed resident-in-Glasgow cases, of whom 212 were paralytic and 66 non-paralytic. This gives a reaction rate of 255 per million.

Deaths of Glasgow cases in the year from poliomyelitis and polioencephalitis numbered 11—a mortality rate of 5·2 per cent. (based on paralytic cases).

A histogram has been prepared showing the weekly notifications and number confirmed throughout the year (page 88). From this it will be seen that, unlike 1947 when only four cases had been notified prior to the end of May, in the same period in 1950 40 notifications had been received. It should be remembered, however, that in 1946 only four cases had been recorded, whereas in 1949 there were 28 and these had largely occurred in the latter part of the year.

Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1946 ...	—	—	1	—	2	—	—	—	—	1	—	—
1949 ...	1	—	2	2	2	—	4	6	2	3	4	2

It will further be observed that the 1950 outbreak, though much earlier in onset than 1947, never attained the rapid rise seen in July, 1947, and overall was more protracted.

The Course of the Epidemic.—The existence of a heightened prevalence was recognised in the latter part of May, and on this occasion particular emphasis was given by the occurrence of two deaths in the first week of June. There was a gradual but steady rise from 5 to 20 in the number of notifications in the ensuing weeks and then from the beginning of July till the middle of August there were slight fluctuations between 21-27 per week ; thereafter they fell slowly, dragging on into November and December. Had the spread of the epidemic continued into July and August with the same impetus as experienced in 1947 a much more extensive outbreak would have resulted.

Administrative Procedures.—Early in June arrangements were put in hand to intensify precautionary measures. Instructions as to procedure and more particularly advice to be given in infected households were issued to sanitary inspectors :—

“ Poliomyelitis is known to be spread by droplet and intestinal infection. The precautions which should be encouraged therefore are those which should be applied to droplet infection or infection of the intestinal type. Young children should be encouraged to keep within their own circle and unnecessary travelling by public conveyance and visiting should be avoided. Both adults and children should be kept away from crowded places. In the case of contacts the children should be kept away as far as possible from other children for a period of two weeks after the removal of a case to hospital and contacts should be excluded from school for 21 days.

“ The usual precautions against the spread of intestinal infection should be adopted. Hands should be washed frequently particularly before eating food and after being to the lavatory. Children should be made to wash their hands frequently. Fruit and vegetables should be washed before being eaten. Paddling or swimming in dirty streams or burns should be discouraged, as of course should the drinking of water from an unreliable source.

“ The question of spread of the infection by flies has not yet been proved but arrangements have been made for the Fly Control Unit of the Department to visit and carry out D.D.T. spraying of the area surrounding the house (ash-bin shelters, etc.). Tenants should be encouraged to make a special attempt to keep down flies. All food should be kept covered and should be bought from day to day.

“ Up to the present the majority of cases have been children under five years of age and parents should be told to discourage children from excessive exercise. By and large the extent of the paralysis is usually found to be in relation to the degree of previous over-exertion. Should children become unwell the patients should be put to bed and the family doctor consulted.”

Discussions with the Regional Hospital Board took place on the availability of accommodation for both the acute cases and those

requiring orthopaedic treatment, and during the following weeks interchange of information of the progress of the epidemic took place. Much on the administrative side depends upon speedy and accurate diagnosis of the suspects in hospital and delays therein result in considerable hardships in the affected homes. The hospitals in the main established an effective scheme whereby the necessary information became speedily available and necessary administrative action was thus expedited.

On 3rd July a circular letter was issued to General Practitioners and in it were incorporated various items of advice about cleanliness, and the avoidance of crowds, travel and exercise. It was also suggested that only urgent operations to nose, throat or teeth should be undertaken and that immunisation against diphtheria and whooping-cough be postponed until the late autumn. These items were also put into force at the school and child welfare clinics.

EPIDEMIOLOGY.

(a) Distribution in Time.

Fig. 2 shows the weekly rates of sickening of the 278 cases. Two peaks are observed, one during the first week of July (19 cases) and the other in the second week of August (20 cases). This corresponds very closely in time with the 1947 experience, but in size there is a marked difference in the number of cases confirmed in the two peak weeks. Meteorological conditions may possibly explain this difference. In 1947 the months of June and July were relatively good and in August a heat-wave was experienced, whereas the months of May and June in 1950 were warm and dry, but July, August and September were cool and wet.

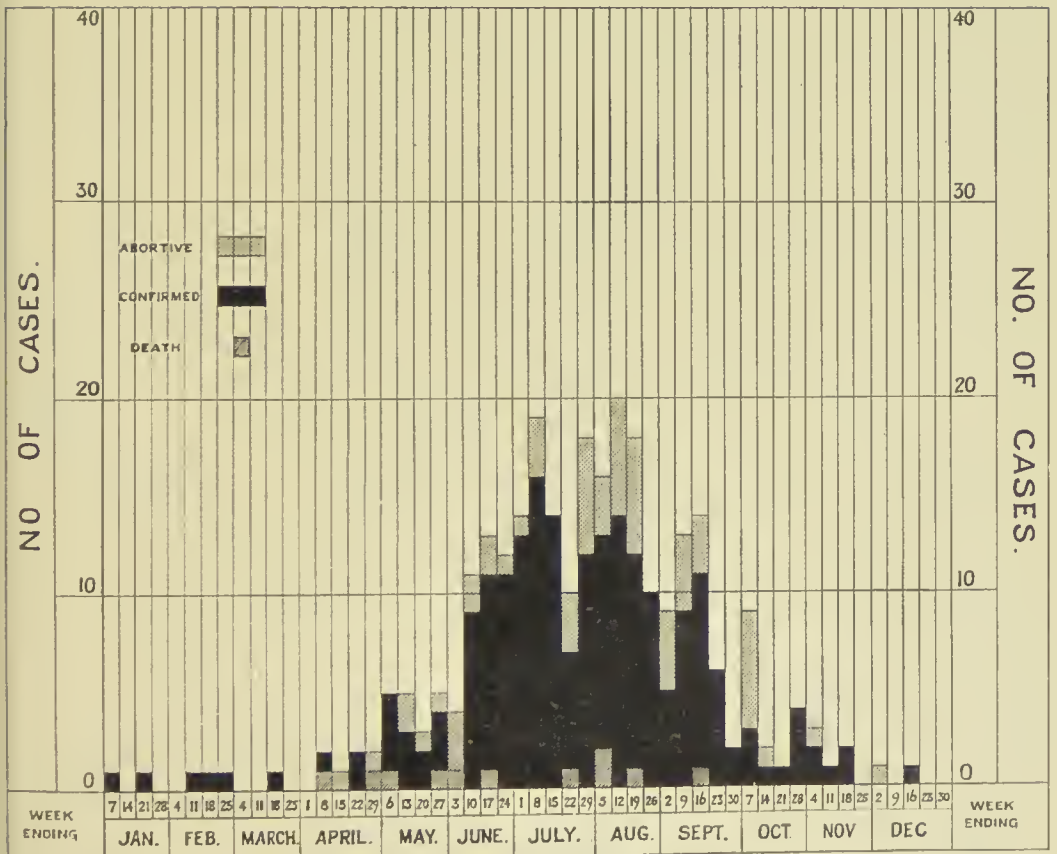
(b) Distribution in Space.

A spot map showing distribution of cases throughout the city in 1950 has been prepared and is reproduced on page 92. The tendency to local aggregation of cases is noticeable and frequently relationship in the severity of infection in the area is noted, though there appears to be but little traceable contact between the cases in each focus.

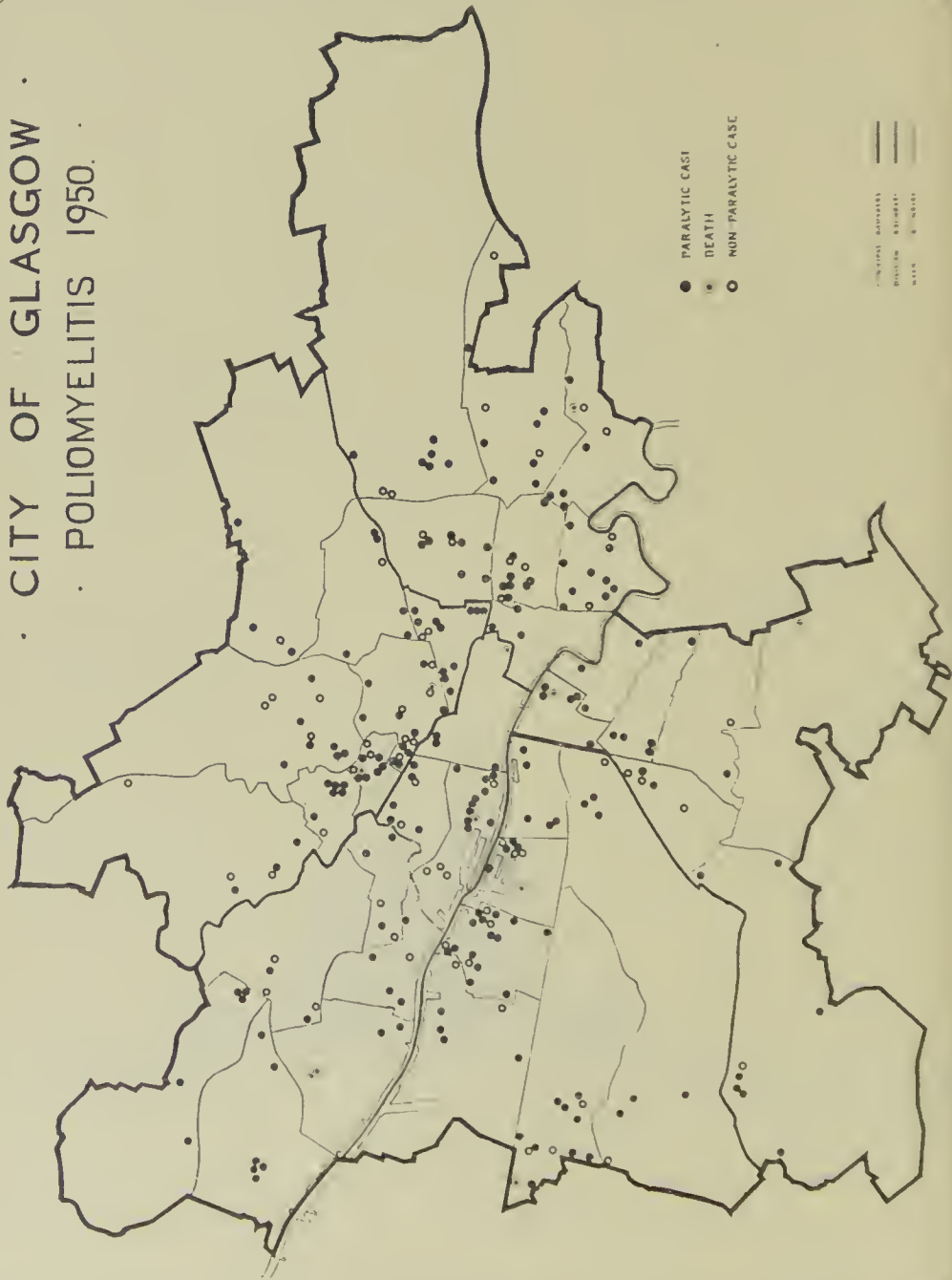
In some wards the incidence is considerably above the average level for the city: Cowcaddens, Anderston and Govan; in others it is below: Cathcart, Langside and Hutchesontown. The south-eastern area of the city was but little affected during the year.

Fig. 2.

· CITY OF GLASGOW ·
· ACUTE POLIOMYELITIS 1950 ·
· SICKENING DATES OF CASES ·



CITY OF GLASGOW · · POLIOMYELITIS 1950.



Comparison of the distributions for 1947 and 1950 shows that some areas have been relatively badly affected in both outbreaks but in other areas foci of infection have died out to reappear in nearby localities.

(c) *Age and Sex Distribution.*

Males (55 per cent.) were again in excess of females (45 per cent.) both in paralytic and non-paralytic cases.

AGE DISTRIBUTION OF ALL CASES.

		-1	-2	-3	-4	-5	-10	-15	-25	25+	Totals
Males ...	...	21	37	19	18	13	20	7	8	10	153
Females	...	17	30	15	20	12	13	4	7	7	125
		—	—	—	—	—	—	—	—	—	—
Total	...	38	67	34	38	25	33	11	15	17	278
		<u>50%</u>			<u>22.6%</u>		<u>15.8%</u>		<u>11.5%</u>		

DEATHS.

0-3 years.	3-5 years.	-15 years.	15+ years.
60%	20%	—	10%

DISTRIBUTION OF PARALYTIC CASES.

0-3 years.	3-5 years.	-15 years.	15+ years.
60%	20%	10%	10%
<u>80%</u>			

These figures contrast remarkably with the similar figures of 1947 for both paralytic and non-paralytic cases, showing a considerably higher proportion in the younger age groups.

			0-3 years.	3-5 years.	5-15 years.	15+ years.
1947	...	...	38.1%	14.7%	32.2%	15%
			<u>52.8%</u>			
1950	...	...		72.6%	15.8%	11.5%

This finding is contrary to recent experiences in Scandinavian, American and Australian epidemics where there has been a marked tendency for the age-incidence to rise.

(d) *Mortality.*

11 deaths were reported during the year, 10 of these in the acute phase and one while the patient was under treatment in the orthopaedic hospital.

The ages of those who died lie as before predominantly in the 0-5 and the 25 + age groups.

The 10 who died in the acute phase had a short severe illness lasting on the average between six and seven days.

Respirator cases numbered 12, of whom eight died and four survived though remaining severely paralysed.

Two deaths occurred early in the outbreak in a group of temporary prefabricated houses—the one a seven-year-old boy who played with the brother of a four-year-old girl who also died. During the ensuing three weeks the 26 other houses in this virtually closed community were kept under close observation and several visits were paid in the neighbourhood. It was found that in the course of this period practically all the children had been seen by their doctor, some on account of illness, others as a precautionary measure. Though no other child was removed to hospital there were several who had a definite but mild illness in which the following diagnoses were made :—Sunstroke (2), Pallor (1), Off Colour (3), and Tonsillitis (3).

(e) *Association between Cases.*

Direct association between confirmed paralytic cases has occurred in several instances and in two cases has occurred in the one household. In one of these an interval of ten days elapsed between the sickening of the primary and the secondary case, and in the other an interval of four days. In three other instances the infection was introduced into other households by a patient who was subsequently confirmed to have infantile paralysis.

The great majority of cases, however, show little or no traceable connection between one another, but mention should be made of the fact which emerges when the occupations of the wage-earners in the households from which the children are removed are elicited. Some four or five firms within the city, each employing some 1,000 to 2,000 employees, have a much higher than usual incidence of infection amongst the children of the employees. Here again the sickening dates of the cases associated with each firm are spread out and it is only possible to surmise a lengthy carrier phase. This finding is in many respects similar to that reported by the Medical Officer of Health, Essex, in his annual report of 1949.

(f) *Special Features.*

Biphasic illness was reported in 25 paralytic cases.

Recurrence of Infection.—A 10-year-old boy who suffered from a mild paresis of his right leg in 1947 and had treatment in orthopaedic hospital, making eventually a complete recovery, developed a non-paralytic poliomyelitis during 1950.

Tonsillectomy.—Tonsillectomy was reported in two instances nine days and ten days before the onset of infantile paralysis. Four children whose teeth had been extracted within a calendar month prior to the onset of paralytic poliomyelitis were reported, and paralysis following inoculation of diphtheria and whooping-cough antigen was reported on six occasions, two of which were prior to the 3rd of July, the date on which temporary discontinuance of inoculation was advised by the Medical Officer of Health. Four other cases who received injections of penicillin for an indeterminate illness developed paralysis of the leg or thigh into which the injection of penicillin was made.

Pregnancy has been quoted in the literature as a possible predisposing cause to poliomyelitis, though there is apparently no existent statistical, biochemical or clinical proof of a lowering of immunity due to this cause. In 1950 two pregnant women came under review as cases of poliomyelitis, but investigation of the households from which the other cases were drawn revealed some 16 pregnant mothers who did not contract poliomyelitis.

Trauma is also an important feature in the history of a patient before the onset of paralysis. In 26 instances children received an injury which was of a more severe nature than is commonly sustained by children in this age group.

One other interesting case may be mentioned. An adult female nurse who had been employed during the 1947 outbreak in a fever hospital, at that time nursing two severe cases of poliomyelitis who required treatment in a respirator, thereby necessarily implying that the contact between the patient and the nurse was close and frequent, developed an extensive poliomyelitis involving both arms and leg while employed in a maternity nursing home in 1950.

As in previous outbreaks, the cases are drawn from all strata of society. In some respects the disease appears to be more acute in better class housing cases.

Symptomology.—In the main the symptoms of onset were those of a traumatic injury infection, though quite a high proportion of the cases complained of lethargy and loss of appetite as their primary symptom. The time elapsing between the onset of symptoms and the onset of paralysis in the 212 cases is set out in the table below.

No. of Cases ...	Day of Illness.					
	1st day.	2nd day.	3rd day.	4th day.	5th day.	5+ days.
	27	48	44	33	18	42

117 cases were notified as suffering from poliomyelitis and the diagnosis subsequently altered. The following table gives an indication of the diseases to which the diagnosis was most frequently altered.

Tonsillitis	...	...	...	...	...	...	14
Upper respiratory infections	...	...	...	...	...	...	12
Bronchitis, pneumonia, tuberculosis	...	...	...	...	...	...	10
Infections of the Central Nervous System	...	...	...	...	...	...	11
Hysteria	...	...	...	...	...	...	3
Acute rheumatism (Myositis, Fibrositis)	...	...	...	...	...	...	7
Other infectious diseases (Scarlet Fever, Leptospirosis, Dysentery, Whooping-cough)	...	...	...	...	...	...	11
No Apparent Disease	...	...	...	...	...	...	25

Of those who were admitted as suffering from other diseases and subsequently found to have poliomyelitis, the original diagnosis had been :—

Cerebro-spinal Fever	...	...	...	...	...	...	53
Whooping-cough	...	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	...	6
Continued Fever	...	...	...	...	...	...	2

Further Treatment.—Of the 212 paralytic cases, 201 were treated in infectious disease hospitals and 11 received preliminary treatment at home. Of this 11 approximately one half were picked up late in the epidemic and were “missed” cases, and in six instances the home circumstances were regarded as satisfactory at the time of diagnosis, and the infection being mild the patient was left under home treatment. 151 patients required to be admitted to the orthopaedic hospitals for further treatment after the acute stage was passed. In 60 per cent. of these cases the treatment was of relatively short duration and did not extend beyond a six months’ period. In 45 instances the patients were well enough at the end of treatment in fever hospital to be discharged home directly and follow-up supervision was undertaken at the Outpatient Orthopaedic Department.

Summary.—A further outbreak of poliomyelitis was reported in which there were 278 confirmed Glasgow cases—212 paralytic and 66 non-paralytic. Mortality was low, 5 per cent. as against 11 per cent.

in 1947. In other respects also the infection was apparently milder than in 1947. There was a change in the age distribution, the persons affected being more noticeably in the younger age group.

MALARIA.

There were only 9 cases of malaria during 1950 compared with 14 in 1949 and 28 in 1948. All were adult males and all were treated in hospital.

MEASLES.

6,837 cases of measles were registered during the year with 15 deaths, 12 of the deaths occurring in the first two years of life. 839 cases (12·27 per cent.) were treated in hospital.

Maximum prevalence, 86·19 per cent. of registered cases, was in the first half of the year, with maximum registration, 2,007 cases, in May. Since 1942, with the exception of 1947 and 1948, measles has been prevalent in the first six months of the year. In 1947 and 1948 the period of maximum prevalence occurred from October, 1947, to April, 1948, with a maximum incidence in January.

During the past 25 years, considered in five-yearly periods, there has been a continuous fall in the deaths from measles, especially notable in the last 10 years. The fall has been both absolute and relative to deaths from all causes under 5 years.

Of the 3,513 deaths from measles occurring between 1926 and 1950 inclusive, 77·17 per cent. of deaths were under 2 years and 96·73 per cent. were under 5 years.

Eighty-five deaths were attributed to measles in the five-year period from 1946 to 1950.

The following table shows in five-year periods from 1926-1950 the registered cases, deaths, the fatality rate per cent. and the deaths expressed as a percentage of the 1926-1950 period.

Quinquennial Period.	Registered Cases.	Deaths.	Fatality Per Cent.	Deaths Expressed as a Percentage of the Deaths in 1926-1950.
1926-1930 ...	54,070	1,456	2·69	100·00
1931-1935 ...	47,391	1,129	2·38	77·54
1936-1940 ...	50,797	696	1·37	47·80
1941-1945 ...	30,177	147	0·49	10·10
1946-1950 ...	32,929	85	0·26	5·84

Table giving the proportionate mortality per cent. of deaths from all causes under 5 years, of deaths under 5 years from measles, whooping cough, and pneumonia and bronchitis.

Quinquennial Period.	Deaths from all causes		Measles		Whooping Cough		Pneumonia and Bronchitis	
	Under 5 years.	Under 5 years.	Deaths Under 5 years.	Prop. Mort. Per Cent.	Deaths Under 5 years.	Prop. Mort. Per Cent.	Deaths Under 5 years.	Prop. Mort. Per Cent.
1926-1930	...	19,391	1,424	7.34	1,371	7.07	5,576	28.76
1931-1935	...	16,219	1,081	6.67	1,254	7.73	4,361	26.89
1936-1940	...	13,867	672	4.85	641	4.62	3,354	24.19
1941-1945	...	11,590	141	1.22	463	3.99	1,964	16.95
1946-1950	...	7,870	80	1.02	132	1.68	1,137	14.45

Table giving the deaths under 2 years from measles, whooping cough, and pneumonia and bronchitis, per 1,000 of the population under 2 years based on the births and deaths but excluding migration in the quinquennial periods from 1926-50.

Quinquennial Period.	Estimated Population		Measles		Whooping Cough		Pneumonia and Bronchitis	
	Under 2 years.	Under 2 years.	Deaths Under 2 years.	Deaths per 1,000 of pop. Under 2 years.	Deaths Under 2 years.	Deaths per 1,000 of pop. Under 2 years.	Deaths Under 2 years.	Deaths per 1,000 of pop. Under 2 years.
1926-1930	...	210,765	1,135	5.39	1,118	5.30	4,865	23.08
1931-1935	...	203,170	855	4.21	1,031	5.07	3,909	19.24
1936-1940	...	200,293	545	2.72	533	2.66	3,104	15.50
1941-1945	...	193,959	111	0.57	384	1.98	1,836	9.47
1946-1950	...	213,125	65	0.30	116	0.54	1,080	5.07

WHOOPING COUGH.

Of the 5,383 cases of whooping cough notified during the year 388 cases, 7·2 per cent., were treated in hospital. There were 13 deaths, 12 occurring in the first 2 years of life.

It was anticipated that there would be an increase in the number of cases registered following the introduction of notification, and this has been estimated as having increased the total by approximately one-third. The estimate is based on previous experience of the proportion of registered cases among school children.

During the year there was an upward trend in the notifications, the lowest number being in January (71) and the highest in December (1,224) with a moderate remission during the summer months.

In the past 25 years, considered in five-yearly periods, there has been a continuous fall in the deaths from whooping cough, and from the second period, 1931-35, onwards whooping cough has fallen as a cause of death relative to deaths from all causes under 5 years.

Of the 3,950 deaths from whooping cough occurring between 1926 and 1950 inclusive, 80·56 per cent. were under 2 years and 97·75 per cent. were under 5 years. 132 deaths were attributed to whooping cough in the five-year period from 1946-50.

The following table shows in five-year periods from 1926-50 the registered cases, deaths, the fatality rate per cent. and the deaths expressed as a percentage of the 1926-30 period.

Quinquennial Period.	Registered Cases.	Deaths.	Fatality Per Cent.	Deaths Expressed as a Percentage of the Deaths in 1926-1950.
1926-1930	32,825	1,405	4·28	100·00
1931-1935	34,035	1,272	3·74	90·53
1936-1940	24,271	660	2·72	46·98
1941-1945	24,216	475	1·96	33·81
1946-1950	19,215	138	0·72	9·82

CHICKENPOX.

This infection was more prevalent again in 1950, the number of cases registered, 7,004, being almost double the number registered in 1949, i.e. 3,700. Cases are removed to hospital only in special circumstances, e.g. when occurring in institutions, children's homes, etc. During the year 162 cases were admitted to fever hospitals.

The disease was probably much more prevalent than the bookings indicate for it is mostly on information obtained from school attendance officers that cases are registered. The incidence was widespread but the wards chiefly affected were Dalmarnock (384), Govan (359), Govanhill (334), Ruchill (333) and Cowcaddens (314). The increased incidence which began with 618 cases in December, 1949, lasted till June 1950 with a maximum of 1,301 in March. A similar rise was noted in December when 566 cases were registered.

DIARRHOEA AND ENTERITIS.

Mortality from this cause shows a marked reduction for the third year in succession. During 1950 there were only 94 deaths. Of these 89 were in children under one year of age (4 per 1,000 births). This is a reduction of 47 per cent. from last year's figure. Mortality in infants under a year is greater among the males as shown in the following table :—

	Males		Females		Total	— 1 year Per thousand births.
	— 1 year	— 2 years	— 1 year	— 2 years		
1944	400	18	270	16	670	30
1945	225	16	138	6	363	12
1946	166	6	117	6	283	12
1947	339	5	221	9	574	22
1948	156	5	86	3	250	11
1949	100	13	57	6	176	7
1950	50	2	39	3	94	4

Several factors have contributed to this reduced incidence, the most obvious being the prolonged wet weather during the summer months which acted as an effective check on the fly population.

The efforts of the fly control unit and the health propaganda undertaken by the staff of the Department are also contributory factors, the combined effect of which should be more evident as time goes on.

NUMBER OF DEATHS UNDER 1 YEAR ACCORDING TO MONTH OF DEATH.

1950.		1949.		1950.		1949.	
Deaths.	Temp.	Deaths.	Temp.	Deaths.	Temp.	Deaths.	Temp.
January	9	38.8	18	40.0	July	3	58.4
February	11	37.6	16	41.1	August	7	57.4
March	10	44.0	9	41.1	September	6	51.9
April	2	42.9	10	47.4	October	6	46.9
May	10	51.9	11	51.6	November	10	38.8
June	7	59.1	4	58.4	December	8	32.5
						11	60.9
						11	59.9
						17	57.6
						19	51.0
						20	42.7
						11	39.5

PEMPHIGUS NEONATORUM.

Cases of pemphigus neonatorum were more numerous in 1950 than in previous years, 20 were reported compared with 11 in 1949 and 19 in 1948.

RABIES.

No case of rabies is known to have occurred, but a number of instances of persons bitten by dogs were reported by the police for inquiry. In 398 cases the bites were recorded as slight and in 13 as serious, a total of 411. This compares with 255 in 1949, 469 in 1948, and 307 in 1947.

TRACHOMA.

During the year 8 new cases, three of which were resident outwith Glasgow, were reported and notified as suffering from trachoma. In the table below is shown the number of cases notified and the number verified each year for the past ten years.

Year.				No. of New Cases Notified.	Definite.	Doubtful.
1941	...	...	...	10	10	—
1942	...	...	...	10	8	2
1943	...	...	...	4	4	—
1944	...	...	...	12	12	—
1945	...	...	...	13	13	—
1946	...	...	...	14	13	1
1947	...	...	...	1	1	—
1948	...	...	...	4	3	1
1949	...	...	...	—	—	—
1950	...	...	...	8	8	—

In addition to the 8 new cases mentioned above two old cases returned and were placed on the register. Two cases died during the year. Thus the total number of registered cases at the end of the year was 114 compared with 106 for 1949.

NUMBER OF CASES ON REGISTER.

Year.				Definite Cases.	Doubtful Cases.	Total.
1941	...	...	...	142	4	146
1942	...	...	...	139	8	147
1943	...	...	...	140	6	146
1944	...	...	...	142	6	148
1945	...	...	...	145	6	151
1946	...	...	...	144	6	150
1947	...	...	...	133	3	136
1948	...	...	...	116	1	117
1949	...	...	...	106	—	106
1950	...	...	...	114	—	114

Patients attending the clinic made a total of 1,235 attendances of which 316 were consultations by the ophthalmic surgeon and 919 were treatments given by the nurse. During the same period the nurse made 192 home visits. No home contacts developed the disease during the year.

Hospital treatment was required for 6 cases. These patients were treated in Stobhill Hospital.

INFECTIVE JAUNDICE (LEPTOSPIROSIS).

Three cases of leptospirosis were notified to the Department during the year 1950.

The first was a child of 5 years who was admitted to a City Fever Hospital in June as a suspected case of poliomyelitis. A few days later, however, he developed jaundice and subsequently the Schuffner test gave a positive result at a titre of 1/1,000 for *L. icterohaemorrhagiae*. On investigation it was found that this child frequently paddled in a sewage polluted stream beyond the City boundary. It is presumed that this was the source of infection.

The second was a boy, aged 13 years, who was admitted to a fever hospital in August as a case of continued fever. The illness began with a complaint of tightness in the chest and headache followed by vomiting. Three days later he recovered sufficiently to be able to go out. By evening on that date his headache had returned and his temperature was again elevated. Forty-eight hours later he was admitted to hospital in a delirious condition. There was nuchal rigidity and Kernig's sign was positive. No jaundice occurred during his stay in hospital and it was established that he was not a case of poliomyelitis but on investigation of the cerebral spinal fluid this was found to re-act positively to the Schuffner test. Blood examination prior to this had been negative to this test. It has been established as leptospirosis meningitis. The infection would not appear to have been contracted in Glasgow, however, as the child was on holiday on a farm in the east of Scotland just prior to his date of sickening.

The third was a 21 year old salesman in the Fish Market. He was admitted to hospital in September as a case of influenza. The next day he developed jaundice and on further examination he was found to have a positive Schuffner test. After a mild illness he made an uneventful recovery.

It is of interest to record that during the course of investigation into the incidence of leptospirosis among workers in the Fish Market this man was found to re-act negatively to the agglutination test. The nature of his work undoubtedly was the source of infection in this case, for during the past four years the majority of the cases of Weil's disease which have occurred in the Fish Market have been employed in this particular corner of the Market.

The investigation into the incidence of Weil's Disease among Fish Market employees in Glasgow which was carried out during 1950 revealed only three positive serological reactions to the Schuffner test out of 169 carried out. In addition one stance-man-fish-porter developed Weil's Disease during the year.

For the purpose of the investigation the employees were divided into three groups, thus :—

Group I.

Salesmen.—There are 104 employed, but as their degree of risk is negligible only a small sample, viz. : 6 men, were examined with negative results.

Group II.

Stancemen, Storemen and Drivers.—Of 103 employed 85 were examined. Only two gave positive serological tests and on questioning it was found that they both had had a previous illness a feature of which was jaundice.

Group III.

Kipperers, Gutters and Curers.—

			No. Employed.	No. Examined.	Positive Serological Tests.
Males	...	...	52	34	0
Females	...	...	50	45	1
Total	...	...	102	79	1

The positive result was found in a girl, aged 17 years, whose entry to the fish trade was very recent. She gave no history of jaundice.

Six cases of Weil's Disease were known to have occurred in Glasgow fish-workers since 1944. This investigation has added only three new cases. Compared with the Aberdeen incidence the findings in Glasgow are small, and can be attributed to the smaller scale of the handling of fish in Glasgow. It is considered that in Glasgow the main danger

lies in the fish stores under the railway arches. Here it would appear that boxes are left out of circulation for long periods and being stacked close to the walls offer good harbourage for rats. High standards of hygiene are essential here.

ANTHRAX.

Four cases of Anthrax were notified during the year but in only three of these was diagnosis confirmed. All three were associated in some way with the presence of infected hides in a tannery in the east end of the city.

The first case, notified in the early summer, occurred in a man whose occupation was unlikely to have brought him into contact with this infection. It was established, however, that he had visited a hairdresser's shop many of whose customers were employed in the tannery and that the infection most probably had been contracted there.

The other two cases of malignant pustule occurred in hide porters in the tannery and the source of infection was confirmed by bacteriological examination of hides and dust from the floors of work-rooms. The latter two cases were notified within three weeks of the first case. All responded to treatment with penicillin and recovery was complete.

SCABIES.

Scabies has been endemic from earliest times and tends to show an increased prevalence in war time. During the first World War this increased prevalence did not cause any undue alarm or inconvenience, but with the onset of the second World War the numbers of cases of scabies showed a gradual increase.

By 1940 it was obvious that strenuous methods would require to be adopted to limit the spread and mitigate the interference it was causing to daily life. Owing to the inadequate powers possessed by Health Departments to deal with recalcitrant sufferers the Government, in 1941, passed under the Defence Regulations the Scabies Order (Scotland). This Order empowered medical officers not only to deal with scabies but with verminous conditions generally. It gave powers to examine all members of households and to insist on the necessary cleansing and treatment. Also at this time a powerful weapon was

added to the armamentarium in benzyl benzoate. Treatment with this chemical was at once rendered speedy and compared with previous methods comparatively simple.

By 1942 and early in 1943 the condition reached its maximum incidence in Glasgow. The total number of infected families brought to the notice of the Public Health Department in 1943 was 10,400 and the number of new cases from them 21,200.

To combat this menace 11 scabies treatment centres were opened in addition to the 8 school clinics with bathing facilities where school children were treated, and 24 health visitors were occupied in home visitation and treatment of patients and contacts. At this time the standard treatment of scabies cases consisted of shower baths followed by the application of 25 per cent. emulsion of benzyl benzoate. Usually two or three treatments sufficed to clear up the infection.

It should be noted here that the Baths Department contributed very largely to the successful issue of the anti-scabies campaign by allowing parts of their premises to be used as scabies centres.

From 1943 the numbers of infected families and the cases dealt with from them diminished steadily and compared with the 21,200 cases recorded in 1943 only 353 were recorded in 1950.

RESPIRATORY DISEASES OTHER THAN TUBERCULOSIS.

The death rate per million for respiratory disease, pneumonia and bronchitis, influenza, and "other respiratory diseases" but excluding tuberculosis was 1,273, compared with 1,086 in 1949, and 824, the lowest on record for the City, in 1948.

DEATHS FROM RESPIRATORY DISEASE, 1946-50.

				Pneumonia and Bronchitis.	Influenza.	"Other Respiratory Disease."
1946	...	...	...	1,055	160	153
1947	...	...	...	1,118	82	144
1948	...	...	...	738	37	140
1949	...	...	...	932	131	142
1950	...	...	...	1,205	57	137

It will be seen from this table that the increase in deaths from respiratory disease is due to an increase in the recorded deaths from pneumonia and bronchitis and this increase occurs mainly in males at ages over 55 years as follows :—

DEATHS FROM PNEUMONIA AND BRONCHITIS.

		1950.	1949.
Under 45 years—Male	...	113	149
	Female	92	101
		<hr/> 205	<hr/> 250
45—55 years —Male	...	84	70
	Female	39	18
		<hr/> 123	<hr/> 88
Over 55 years —Male	...	560	319
	Female	317	275
		<hr/> 877	<hr/> 594
All ages, both sexes	...	<hr/> 1,205	<hr/> 932

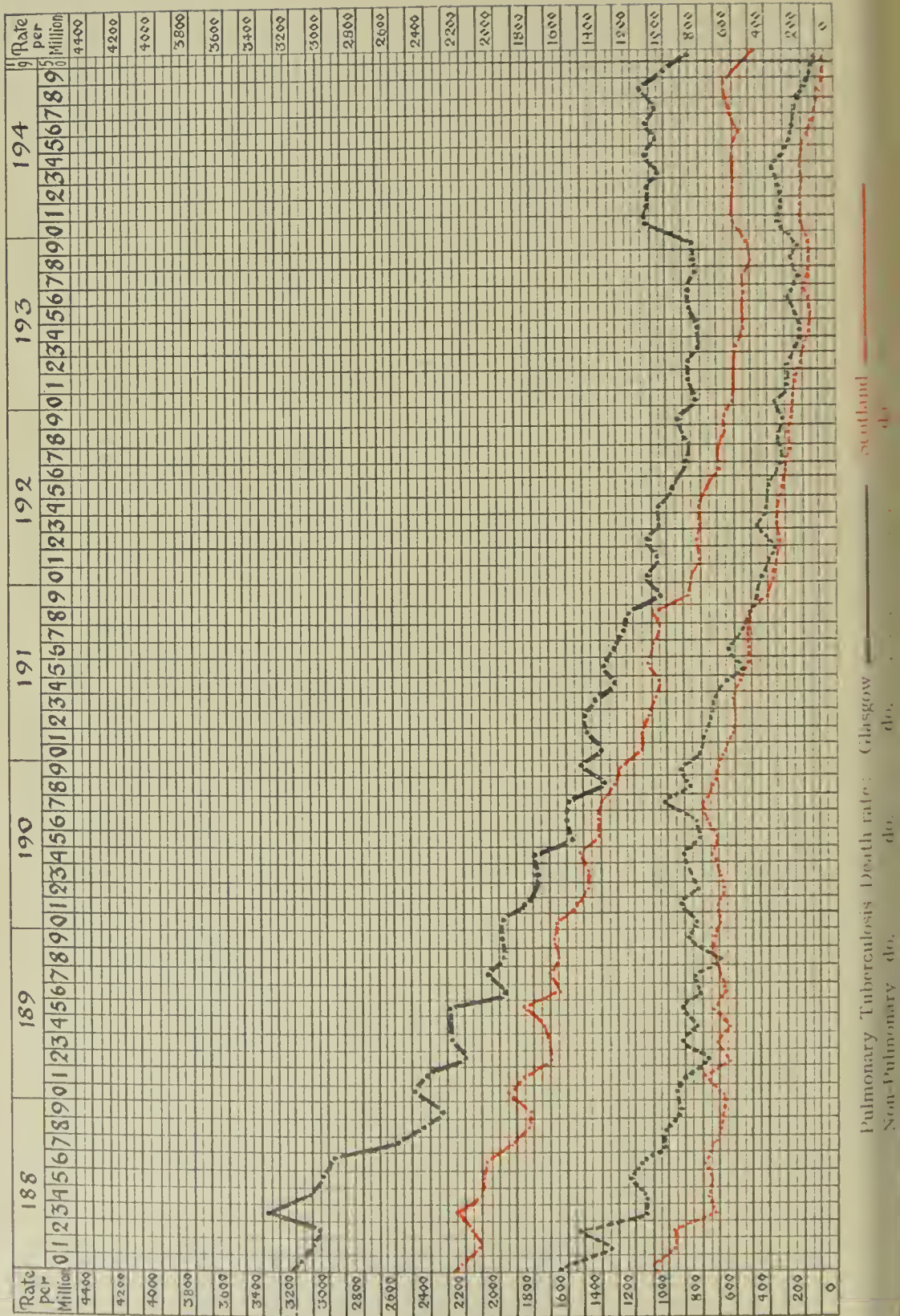
The adoption on 1st January, 1950, of the new International Classification of the Causes of Death has prevented a close comparison being made between 1950 and previous years. Before 1950, disease of the heart as a cause of death was preferred to disease of the respiratory system where both were mentioned on the death certificate, but disease of the respiratory system if first mentioned is now taken as the cause. This will to some extent have influenced the figure of recorded deaths from pneumonia and bronchitis. In 1950, 509 deaths were attributed to pneumonia and 696 to bronchitis, the corresponding figure for 1949, being 608 deaths from pneumonia and 324 from bronchitis. The increase in recorded deaths from bronchitis can probably be attributed to the new classification.

The fall in the death rate from respiratory diseases since 1926 is shown (in five-yearly periods) in the following table:—

Quinquennial Period.	Average Population.	Pneumonia and Bronchitis		Influenza		“Other Respiratory Disease”	
		Average No. of Deaths Per annum.	Death Rate per Million.	Average No. of Deaths Per annum.	Death Rate per Million.	Average No. of Deaths Per annum.	Death Rate per Million.
1926-1930	...	1,089,595	2,419	367	336	207	190
1931-1935	...	1,104,417	1,896	272	246	196	177
1936-1940	...	1,108,219	1,598	276	249	177	160
1941-1945	...	1,047,200	1,099	102	97	130	124
1946-1950	...	1,099,000	919	93	84	143	130

TUBERCULOSIS: CHART SHOWING DEATH-RATES PER MILLION (Registrar General)

GLASGOW AND SCOTLAND, since 1880



TUBERCULOSIS.

In the field of tuberculosis, 1950 was notable for two outstanding features. One feature was the definite decrease in the general recorded incidence of the disease; the other was the introduction of B.C.G. vaccination, which is described in a separate section.

The total of 2,446 cases of pulmonary tuberculosis notified during 1950 is 383 fewer than in 1949, and the lowest total since 1942. The cases of non-pulmonary tuberculosis numbered 369, almost half the total of 735 which was recorded as recently as 1943. The yearly totals since 1935 are shown in the following table :—

				Pulmonary	Non-pulmonary.	All Cases.
Average, 1935-39	...	...	...	1,650	657	2,307
1940	...	...	...	1,908	669	2,577
1941	...	...	...	2,066	661	2,727
1942	...	...	...	2,324	714	3,308
1943	...	...	...	2,778	735	3,513
1944	...	...	...	2,758	671	3,429
1945	...	...	...	2,641	555	3,196
1946	...	...	...	2,809	508	3,317
1947	...	...	...	2,765	512	3,277
1948	...	...	...	2,775	373	3,148
1949	...	...	...	2,829	390	3,219
1950	...	...	...	2,446	369	2,815

The decrease of 383 pulmonary cases from those recorded in 1949 is encouraging. Nevertheless, it should be observed that the total for 1949 was greater than that recorded even for any war year and represented an increase of 71 per cent over the pre-war yearly average of 1,650 notified cases. The total for 1950 is still 48 per cent. over the pre-war average and remains within the high range of incidence recorded during the war years.

The age and sex of all cases notified during 1950 are given below.

Age-groups	Pulmonary		Non-pulmonary	
	Males	Females	Males	Females
-5	96	78	48	31
-15	104	130	44	49
-25	352	520	34	53
-35	221	251	19	36
-45	165	105	4	14
-55	167	43	7	15
-65	107	26	4	3
+65	64	17	4	4
	<hr/> 1,276 <hr/>	<hr/> 1,170 <hr/>	<hr/> 164 <hr/>	<hr/> 205 <hr/>

It is apparent that the distribution of pulmonary cases follows the pattern of previous years. When, however, the difference of 383 cases is distributed among the age-groups and expressed as a percentage of the 1949 totals, it is seen that the decline has been by no means uniform. This is demonstrated by the following table (the + sign indicates an increase in 1950 instead of a decrease).

PULMONARY TUBERCULOSIS, 1950.

Age Groups	No. of Cases, 1950	MALE		No. of Cases, 1950	FEMALE	
		Decrease from 1949	% Decrease from 1949		Decrease from 1949	% Decrease from 1949
-5	96	8	7.7	78	16	17.0
-15	104	60	36.5	130	48	26.9
-25	352	43	10.9	520	78	13.0
-35	221	13	5.5	251	48	16.0
-45	165	41	19.9	105	16	13.0
-55	167	(+6)	(+3.7)	43	(+1)	(+2.4)
-65	107	34	24.0	26	(+6)	(+30.0)
+65	64	(+14)	(+28.0)	17	5	22.7

From this analysis, the following features emerge :—(1) The decline is most apparent in children, especially those aged 5-15 years ; (2) In the most affected age-groups, viz. : 15-25 and 25-35, the decline is least ; (3) In the older groups, aged 45 and over, the incidence shows some increase, especially in males over 65 years.

At 31st December, 1950, 10,342 known cases of pulmonary tuberculosis were resident in the city. The sputum of 5,737 of these had been tested for the presence of the tubercle bacillus, resulting in positive findings in 3,919 (68 per cent.) and negative findings in 1,818 (32 per cent.).

The following table shows the death-rate from tuberculosis during the past five years :—

DEATH RATE PER MILLION.

Year.	Pulmonary.	Non-pulmonary.	All Forms.
1946	1,102	225	1,327
1947	1,066	224	1,290
1948	1,142	135	1,277
1949	1,010	127	1,137
1950	866	117	983

While it is satisfactory to record a fall in the notification and death rates from pulmonary tuberculosis, this disease must still be regarded as one of the most serious health problems of the city. It is true that the cases registered are, generally speaking, being discovered at an earlier stage than hitherto, but frequently this initial advantage is lost through the long delay in obtaining appropriate hospital treatment. The housing conditions of the city are such that in a large number of cases successful home treatment cannot be carried out. Isolation is frequently impossible and contact cases inevitably arise. The Annual Reports of the Medical Officer of Health have again and again pointed out that when pulmonary tuberculosis occurs in a household the whole family are at risk, and that it is false policy merely to concentrate effort on the cure of the individual. The work of the tuberculosis health visitor is absolutely essential to the proper functioning of a tuberculosis scheme, and even this work can be partially frustrated if rehousing of overcrowded families is too long delayed or the patient fails to receive prompt and adequate hospital attention.

GLASGOW.—CASES OF TUBERCULOSIS NOTIFIED AND DEATH RATE PER
MILLION IN EACH MUNICIPAL WARD DURING 1950.

Ward	Pulmonary			Non-pulmonary		
	Cases		Death- rate Both Sexes	Cases		Death- rate Both Sexes
	Males	Females		Males	Females	
Shettleston and Tollcross	46	46	955	15	12	238
Parkhead	24	26	1,264	3	5	147
Dalmarnock	34	46	920	9	10	157
Calton	32	41	1,309	3	2	149
Mile-End	40	41	1,021	9	7	94
Dennistoun	27	31	1,003	6	8	108
Provan	26	42	1,192	3	5	52
Cowlairs	36	29	750	5	7	136
Springburn	37	49	1,118	8	8	116
Townhead	46	53	768	9	14	284
Exchange	23	25	1,497	5	3	100
Anderston	54	30	1,070	4	5	252
Park	31	19	412	2	9	164
Cowcaddens	39	49	616	6	7	102
Woodside	54	25	575	1	11	102
Ruchill	74	70	1,661	9	10	237
North Kelvin	19	24	513	6	4	—
Maryhill	21	24	1,048	1	2	—
Kelvinside	14	9	151	3	1	—
Partick (East)	22	12	417	1	5	42
Partick (West)	40	31	839	6	7	70
Whiteinch	21	29	1,023	—	2	43
Yoker	34	33	915	4	10	140
Knightswood	21	11	1,175	4	3	62
Hutchesontown	48	43	611	—	2	29
Gorbals	59	45	994	10	5	124
Kingston	33	28	651	3	3	—
Kinning Park	23	34	497	2	5	133
Govan	42	32	703	10	5	81
Fairfield	19	26	707	1	4	176
Craigton	33	28	700	1	5	104
Pollokshields	42	28	1,125	2	6	182
Camphill	9	7	592	2	1	42
Pollokshaws	37	38	1,597	5	9	205
Govanhill	22	17	297	3	1	74
Langside	12	3	446	—	—	40
Cathcart	20	24	555	3	2	93
Institutions	62	22	—	—	—	—
Harbour	—	—	—	—	—	—
Total for City ...	1,276	1,170	866	164	205	117

The numbers of patients dealt with in tuberculosis hospitals and sanatoria during the year and in residence at the end of the year are shown in the subjoined table. The totals show no significant variation from 1949, although the number of deaths, 321 compared with 351 in 1949 and 486 in 1948, again shows a decline. This is no doubt due to the established policy of giving priority of admission to early or "treatable" cases at the expense of the more chronic advanced cases.

INSTITUTIONAL CASES.						
		In Insti- tutions on January 1	Admitted during the year	Discharged during the year	Died in Insti- tutions	In Insti- tutions on December 31
<i>Respiratory—</i>						
Adults—						
Males ...	...	488	830	693	141	484
Females		598	1,109	961	138	608
Children—						
Males ...	...	99	124	134	5	84
Females	...	90	125	109	7	99
<i>Non-Respiratory—</i>						
Adults—						
Males ...	...	92	123	120	8	87
Females	...	108	154	135	12	115
Children—						
Males ...	...	124	92	104	6	106
Females	...	105	77	95	4	83
Total	...	1,704	2,634	2,351	321	1,666

B.C.G. VACCINATION.

In 1950, the method of B.C.G. vaccination to combat tuberculosis was first introduced in Glasgow. Following the extensive use of B.C.G. on the Continent for some years, the Department of Health in 1949 sanctioned trials of the vaccine among 4 prescribed groups of the population, viz.: (1) Nurses in hospitals, especially institutions for tuberculosis; (2) New-born infants of tuberculous mothers; (3) Contacts of cases of open pulmonary tuberculosis; and (4) Medical students. The vaccine is given only to persons who have not already received a primary tuberculous infection as shown by a negative reaction to tuberculin, and only while they are segregated for a period of about 12 weeks from known sources of infection. Observance of these conditions required somewhat elaborate arrangements for skin-testing and segregation, and during 1950, several centres were selected for the administration of the scheme of vaccination, three of these being residential institutions.

Scotstoun House.—In this home, which is normally used for debilitated children, ten cots were reserved in two rooms, forming an isolation unit, for new-born infants of tuberculous mothers delivered

in the maternity unit of Robroyston Hospital. The infants are vaccinated within 2 weeks of birth and then transferred to Scotstoun House, where segregation is continued for a further 8 weeks. The first infants were received in May.

Carnbooth.—A large modern house built in 1900, Carnbooth is situated in the country between Carmunnock and Busby. It was purchased in 1949, refitted, and opened for use in August. It has accommodation for 32 children aged 2 to 7 years and it is planned to increase the total to 70 by building extensions.

Moffat Street House.—First used as a Reception House and later as a disinfection unit, Moffat Street House was completely renovated during 1950 and opened in August as a segregation unit in the B.C.G. vaccination scheme. It has accommodation for 40 children of 7 years and over.

Millbrae House.—A former maternity nursing home, was also purchased in 1950, and at the end of the year was undergoing conversion to a B.C.G. segregation unit. When available for use it will provide accommodation for about 25 children of 2 years and under, including new-born infants.

Central Clinic.—In the Department at 20 Cochrane Street a clinic was established to serve the double function of a centre for performing preliminary skin-tests on all contacts and also for vaccinating those contacts who do not require institutional segregation.

Baird Street Hospital.—Under the direction of physicians of the Western Regional Hospital Board a clinic for the post-natal supervision of tuberculous mothers is held in Baird Street Hospital, which thus forms an additional centre for B.C.G. vaccination. The contacts dealt with are young children of varying ages and vaccinations are performed on an outdoor basis.

The foregoing arrangements are designed to deal with the two prescribed contact groups; the remaining two groups, viz. : nurses and medical students, are dealt with by the Western Regional Hospital Board according to their location.

Nurses and Medical Students.—Members of nursing staffs and nursing recruits are vaccinated at the hospitals to which they are attached, either by physicians on the hospital staff or by the tuberculosis officer in whose area the hospital is situated. Medical students are similarly dealt with at the University by two other specialist physicians.

The number of B.C.G. vaccinations performed in all groups during 1950 was 435, distributed as shown.

B.C.G. VACCINATIONS IN GLASGOW, 1950.

	<i>Group.</i>	<i>Centre.</i>	<i>Vaccinations.</i>
<i>Indoor.</i>	Contacts.	Moffat Street.	21
	Contacts.	Carnbooth.	19
	New-born infants	Scotstoun House	33
<i>Outdoor.</i>	Contacts.	Baird Street.	68
	Contacts.	Cochrane Street.	89
	Nurses.	Hospitals.	124
	Medical Students.	University.	81
Total Vaccinations, Glasgow			<hr/> 435 <hr/>

The total of 435 vaccinations is not large but when it is related to the fact that at most centres vaccinations commenced only in the latter part of the year, this number represents at least a good start to the scheme. A number of years must elapse before the efficacy of the procedure can be fairly estimated. It will be noted that the groups dealt with almost entirely comprised children and young adults. The decision to protect these age-groups first is sound in view of the evidence that B.C.G. exerts its greatest effects in these particular groups. It may therefore be confidently expected that, with an increasing rate of vaccination, the next few years will show a diminishing incidence of, and mortality from, tuberculous meningitis, miliary disease, bone and joint disease and young adult phthisis. Should tuberculosis incidence and mortality continue to decrease, any claims on behalf of B.C.G. for this improvement must be examined with care. That such a decline might be wrongly attributed to B.C.G. is illustrated by the fact that, for the first time for eleven years, tuberculosis incidence and mortality in Glasgow showed a definite decrease during 1950, the year which coincided with the first use of B.C.G. vaccine, although vaccinations were performed in numbers which could play no possible part in the downward trend noted in 1950.

Despite the good results expected from B.C.G. vaccination, or because of them, it seems an opportune time to emphasize that B.C.G. vaccine is no more than an additional weapon to combat tuberculosis. The routine methods of prevention already employed are no less important than before, and any relaxation in the use of these methods cannot be permitted or justified.

BAIRD STREET AUXILIARY HOSPITAL.

This hospital continues to serve as the out-patient department of the chest clinics and, due to earlier diagnosis, improved methods of treatment and the increasing use of chemo-therapeutic drugs, the volume of work is steadily increasing.

At the Department for Collapse Therapy, 24,150 refills of air were given during 1950. This shows a considerable increase over the figure for 1949 when 16,919 refills were given. Four hundred and ninety-five inductions of either a pneumothorax or pneumoperitoneum were carried out in this department during 1950, almost double the number recorded for the previous year.

Contrary to our expectations attendances at the Actinotherapy Department have also increased. The reason for this is that while certain forms of non-pulmonary tuberculosis are on the decline, a clinic for the investigation and treatment of asthmatic cases has been opened and many of these benefit from general ultra-violet irradiation.

At the Streptomycin Clinic, a comparison between the figures for 1949 and 1950 shows that while the attendances for the former year were 6,960, there were 48,011 attendances during the latter year.

A clinic for the investigation of infants of tuberculous mothers undertook the skin testing (Mantoux) of 384 such infants and B.C.G. vaccination was offered wherever it was indicated.

VENEREAL DISEASE.

While there was generally a decrease in venereal disease during the year 1950, the most prominent features were the fall in the incidence of acute syphilis, both in males and females, and the decrease in congenital syphilis. In the latter disease the number of cases at all ages reached a new low level, as did also the cases under one year. The rate per 1,000 live births for congenital syphilis was 0.55, a figure approached only by 0.75, the rate for the year 1941.

Some 10,000 pre-natal blood tests were made and 0.70 per cent. found to be positive. This again is a record low figure but it must be remembered that the total number of blood tests represents only half the total expectant mothers for the year.

Acute gonorrhoea has shown only a fractional decrease in males and an increase in females. On the other hand, the number of female patients suffering from chronic gonorrhoea has fallen to 11 for the year 1950 compared with 312 for the year 1938. This marked decrease over the past thirteen years is undoubtedly associated with the newer methods of treatment which have almost abolished the risk of chronicity.

The figures for the incidence of venereal disease during the years 1938 to 1950 are shown in the following table :—

NEW CASES OF VENEREAL DISEASE FOR THE YEARS 1938-1950.

Year.	Acute Syphilis.		Acute Gonorrhoea.	
	Males.	Females.	Males.	Females.
1938	250	124	1,426	157
1939	293	118	1,358	143
1940	465	144	1,476	165
1941	671	279	1,720	246
1942	778	395	1,536	308
1943	671	368	1,323	407
1944	454	262	1,231	406
1945	365	252	1,301	398
1946	687	356	2,463	449
1947	597	247	2,164	305
1948	412	181	2,041	238
1949	341	128	1,559	142
1950	201	97	1,417	203

Acute syphilis in males is now 19·5 per cent. below the 1938 figure ; for females, 21·8 per cent. While acute gonorrhoea in males is fractionally below the 1938 figure, in females it has increased by 43 per cent. since 1949 and is now 29 per cent. above the 1938 figure.

The trend in acute gonorrhoea is paralleled by the slight decrease in the number of new patients attending the centres for the first time and also the absence of any material reduction in the number of patients attending the centres suffering from non-venereal conditions. The total new and transferred-in cases attending the centres for the first time for the years 1938 to 1950 are shown in the following table :—

NEW AND " TRANSFERRED IN " CASES OF VENEREAL DISEASE
ATTENDING THE CENTRES FOR THE FIRST TIME.

During the years 1941 to 1950 the attendance of patients suffering from non-venereal conditions was as follows :—

					Total New Cases.	Transferred In.
1938	...	...	...	...	5,189	245
1939	...	...	...	...	4,724	189
1940	...	...	...	...	5,021	219
1941	...	...	...	...	5,891	441
1942	...	...	...	...	6,344	642
1943	...	...	...	...	7,740	853
1944	...	...	...	...	6,544	735
1945	...	...	...	...	6,582	619
1946	...	...	...	...	9,937	1,495
1947	...	...	...	...	8,181	570
1948	...	...	...	...	7,554	818
1949	...	...	...	...	6,678	648
1950	...	...	...	...	6,185	555

ATTENDANCE OF PATIENTS SUFFERING FROM NON-VENEREAL
CONDITIONS DURING YEARS 1941 TO 1950.

Year.			Males.	Females.	Total.
1941	...	...	880	246	1,126
1942	...	...	1,058	398	1,456
1943	...	...	2,002	708	2,710
1944	...	...	1,656	721	2,377
1945	...	...	1,674	799	2,473
1946	...	...	3,027	650	3,677
1947	...	...	2,458	547	3,005
1948	...	...	2,472	477	2,949
1949	...	...	2,402	470	2,872
1950	...	...	2,248	440	2,688

Although the number of both male and female patients has decreased from the peak attendance, the figures are very much higher than in 1941. It would appear that while acute venereal disease is generally decreasing, no impression is being made on the larger problem of promiscuity. It is possible perhaps that the practice which had not been established pre-war of obtaining advice at the earliest possible date after exposure is still holding.

Contact-tracing work is carried out by the staff of the male and female *ad hoc* centres but the statistics cannot be regarded as in any way satisfactory.

VENEREAL DISEASES, 1950—*Ad hoc* CLINICS.

Contact Tracing, and Follow-up of Sources of Infection.

Referred by Male Clinics.

		Wives.		Consorts.	
		Number.	Percentage.	Number.	Percentage.
Attended ...	...	101	89.4	34	59.7
Did not attend ...	...	12	10.6	23	40.3
		<hr/> 113		<hr/> 57	

Total Referred, 170 ; Total attended, 135—79.4 per cent.

Referred by Female Clinics.

						Husbands and Consorts.	
						Number.	Percentage.
Attended ...	...	...	...	...	...	11	31.4
Did not attend ...	...	...	...	...	...	24	68.6
Total Referred						<hr/> 35	

Syphilis.—The number of male patients suffering from acute syphilis coming to the clinics for the first time in 1950 was 201, which compares with 341 in 1949 and 412 in 1948. The peak in acute syphilis in males was 1942 when 778 cases attended the centres. Acute syphilis in females decreased from 128 in 1949 to 97 in 1950. The peak incidence in females was also the year 1942 when 395 female patients attended the centres.

The number of patients suffering from late syphilis decreased to 293 as compared with 323 in 1949. In 1938, 467 new cases of late syphilis attended at the centres. As in gonorrhoea, the newer methods of treatment, including the shorter courses, have permitted the more complete treatment of acute syphilis and reduced very considerably the likelihood of the development of the later manifestations.

As already mentioned, the incidence of congenital syphilis has decreased, both in "All Cases" and in "Cases under One Year." The rate per 1,000 births is a record low figure but is still high as compared with the optimum. Continued efforts are being made to persuade ante-natal patients found to be suffering from syphilis to undergo treatment.

CONGENITAL SYPHILIS.

Year.		All Cases.	Cases—1 Year.	Rate per 1,000 Live Births.
1922	...	1,023	335	12.8
1927	...	551	119	5.0
1932	...	240	72	3.2
1937	...	177	36	1.6
1941	...	67	15	0.75
1942	...	71	27	1.3
1943	...	97	32	1.4
1944	...	83	29	1.3
1945	...	72	32	1.6
1946	...	72	27	1.1
1947	...	80	25	0.97
1948	...	60	28	1.3
1949	...	52	22	1.1
1950	...	39	11	0.55

During the year 1950, 10,692 pre-natal blood tests were carried out and 0.70 per cent. were found to be positive, a new low figure.

PRE-NATAL BLOOD TESTS.

Year.				Number.	Percentage Positive.
1925	...	...	...	—	4.9
1930	...	...	...	1,749	2.8
1935	...	...	...	3,334	1.8
1940	...	...	...	8,714	1.3
1942	...	...	...	10,265	1.18
1943	...	...	...	11,067	1.7
1944	...	...	...	10,260	1.3
1945	...	...	...	10,853	1.18
1946	...	...	...	13,946	1.23
1947	...	...	...	13,250	1.46
1948	...	...	...	12,692	0.96
1949	...	...	...	10,497	0.83
1950	...	...	...	10,692	0.70

As already mentioned, the number of blood tests still represents only half the total births and the practice of ante-natal blood tests both for the Rhesus Factor and for the Kahn and Wassermann Tests must be extended.

Gonorrhoea.—The incidence of acute gonorrhoea in males has decreased from 1,559 in 1949 to 1,417 in 1950 but in females the incidence has increased from 142 cases in 1949 to 203 in 1950. The latter figure exceeds the 1938 number by 46.

Chronic gonorrhoea in both males and females has continued at a low level, the number of cases in females being 11 compared with 13 in 1949. The following table shows the very pronounced fall in the incidence of chronic gonorrhoea in females since 1940, with the improved methods of treatment of acute gonorrhoea :—

CHRONIC GONORRHOEA IN FEMALES.

Year.	Number.	Year.	Number.
1938	312	1945	42
1939	266	1946	48
1940	229	1947	38
1941	119	1948	22
1942	88	1949	13
1943	93	1950	11
1944	54		

Venereal Diseases in Seamen.—Seamen continue to form a fair proportion of the patients attending the three *ad hoc* male clinics—Black Street, Broomielaw and Bellahouston. Of the total new and transferred-in patients attending these clinics, 28·8 per cent. suffering from early syphilis and 13·7 per cent. of those suffering from acute gonorrhoea were seamen. In the case of early syphilis the figure shows a small increase ; in acute gonorrhoea, a small decrease.

BLACK STREET, BROOMIELAW, BELLAHOUSTON CLINICS.

NEW AND TRANSFERRED-IN PATIENTS.

PROPORTION OF SEAMEN TO TOTAL CASES.

	Early Syphilis.			Acute Gonorrhoea.		
	All.	Seamen.		All.	Seamen.	
1939	265	54	20·4%	1,133	75	6·6%
1940	403	133	33·0%	1,210	224	18·5%
1941	793	434	54·7%	1,671	539	32·3%
1942	1,082	589	54·4%	1,543	532	34·5%
1943	1,149	577	50·2%	1,393	436	31·3%
1944	831	452	54·3%	1,356	428	31·6%
1945	679	228	33·6%	1,478	370	25·0%
1946	1,264	164	13·0%	3,070	435	14·2%
1947	872	166	19·0%	2,340	330	14·1%
1948	614	106	17·2%	2,152	294	13·7%
1949	461	120	26·0%	1,646	267	16·2%
1950	267	77	28·8%	1,477	203	13·7%

In-Patients.—In-patient treatment is still available and is utilised largely for patients who require indoor accommodation for sociological reasons. During the year, 234 patients were treated in hospital compared with 319 in 1949. The peak occurred in 1943 when 694 cases required in-patient treatment. During 1950 the number of male patients admitted to Belvidere Hospital was 79, a decrease of 28 as compared with the previous year. Patients admitted to Baird Street Auxiliary Hospital and Ruchill Hospital decreased from 210 in 1949 to 149 in 1950. The following table shows the admission of patients to institutions for the treatment of venereal disease:—

TOTAL NUMBER OF PATIENTS ADMITTED FOR IN-PATIENT TREATMENT.

	Sex.	Primary Syphilis D.G. + W.R. -	Primary Syphilis W.R. +	Secondary Syphilis.	Latent Syphilis. (1st year).	All Later Stages.	Congenital Syphilis.	Extra-genital Infection.	Acute Gonorrhoea.	Chronic Gonorrhoea.	Soft Chancre.	Non-Specific Venereal Disease.	Non-Venereal	Total Admissions	Aggregate Days' Residence.	Average Days' Residence
Belvidere Hospital	M.	9	9	5	—	23	—	—	14	—	6	12	1	79	2,475	31·5
Baird Street	M.	—	—	—	—	—	4	—	—	—	—	—	2	6	1,916	319·3
	F.	1	9	8	1	5	1	—	6	2	—	1	6	40	2,209	55·2
Ruchill Hospital	M.	—	—	—	—	—	4	—	—	—	—	—	—	4	597	149·2
	F.	—	4	15	3	33	12	—	17	3	1	2	9	99	3,659	36·9
Other Hospitals	M.	—	—	—	—	—	4	—	—	—	—	—	—	4	150	37·5
	F.	—	—	—	—	—	2	—	—	—	—	—	—	2	16	8·0
Totals		10	22	28	4	61	27	—	37	5	7	15	18	234	11,022	47·1

Attendance of Patients.—Patients attending for the first time at the various centres numbered 6,185 compared with 6,678 in 1949. There were 69,654 attendances of new and old patients and 234 patients were admitted for in-patient treatment, 46 being admitted directly without previous attendance at the centres. The *ad hoc* centres dealt

with 96·4 per cent. of all acute venereal disease. The following table summarises the attendance of new patients at the various centres :—

	<i>Ad Hoc</i> Treatment Centres		Glasgow : All Centres.
	Males.	Females.	
Acute Syphilis (includes Primary, Secondary and Latent in the First Year of Infection)	182	73	298
Acute Gonorrhoea	1,409	186	1,620
Total Acute Venereal Disease ...	1,591	259	1,918
Late and Congenital Syphilis	112	69	332
Chronic Gonorrhoea	11	9	22
Total Chronic Venereal Disease ...	123	78	354
Other Diseases, including Soft Sore, Septic Balanitis, etc.	1,109	38	1,225
Non-Venereal	2,164	330	2,688

Incidence of Jaundice.—The incidence of jaundice in the course of treatment of patients suffering from syphilis is decreasing rapidly with the additional care in syringe sterilisation and the use of penicillin in place of intravenous injections of neoarsphenamine in the treatment of the disease. During the year, out of 182 cases of early syphilis attending the male *ad hoc* centres, four developed jaundice, compared with 12 patients out of 311 cases of early syphilis in 1949. Of the 102 cases of late syphilis attending the male *ad hoc* centres, two developed this complication. None of the patients required treatment in hospital.

Follow-up of Defaulters.—The nurse almoners and the senior attendants at the male centres continue to follow up defaulters by letters and personal visits, resulting in a proportion of the defaulters resuming treatment. During the year the nurse almoners visited 1,124 female patients on 1,396 occasions and persuaded 91·2 per cent. of the patients to resume treatment. The wrong name and address had been given by 92 persons. In the follow-up of the male patients, 2,537 follow-up letters were sent to 1,663 patients who defaulted during treatment and 69·2 per cent. of the patients resumed treatment. On 347 occasions the wrong name and address had been given. These latter results cannot be regarded as satisfactory and a special effort is being made in the following-up of the male defaulters.

SECTION V.

MENTAL SERVICES

Under the terms of the National Health Service (Scotland) Act, 1947, the outdoor administration of the Lunacy and Mental Deficiency Acts remains the function of the Local Health Authority. The duties, which are carried out by four experienced medical officers, comprise work in connection with (a) mental deficiency, and (b) certification for mental hospital.

(a) *Mental Deficiency*.—The boarded-out mental defectives in the city number 990, an increase of 35 over last year, and their supervision and statutory quarterly visitation entail a considerable amount of work, particularly when, as in many instances, several visits are necessary in order to contact the patient and record the visit. In addition, the Board of Control issues from time to time requests for special reports on certain patients with regard to their suitability for continued guardianship, removal to an institution, or discharge. During 1950 these reports totalled 405. The great majority of the boarded-out mental defectives are satisfactorily housed and cared for, and their guardians co-operate well with the visiting medical officer.

During the year, 114 new cases were added to the Roll as compared with 120 during 1949. The following is a summary of the year's work:—

Number on roll on 1st January, 1950	...	...	...	...	955
New cases added during year	...	...	...	...	114
Cases removed from roll during year	...	...	...	...	79
Number remaining on roll at 31st December, 1950	...	...	...	...	990
Statutory visits made during year	...	...	...	...	3,674
Additional visits necessitated during year	...	...	...	...	1,019
Visits for the purpose of special reports to Board of Control	...	...	...	...	405
Total visits during year	...	...	...	...	5,098

In addition to the above, 196 visits were paid to boarded-out mental patients. These are cases who, after a period of treatment in a mental

hospital, are sent out on licence so that they may re-establish themselves by living and working in the community. Under the National Health Service Act these cases under guardianship become the responsibility of the Regional Hospital Board. By arrangement, however, they are visited quarterly by medical officers of the Local Authority in the same way as boarded-out mental defectives. Thus there falls to be added to the 5,098 visits made by the medical officers, and shown in the table above, a further 196, making a grand total of 5,294.

(b) *Certification for Mental Hospital.*—At the request of general practitioners, persons who are, or are alleged to be, of unsound mind are visited and examined by the medical officers of the Department. In order to meet the needs of the practitioners and the public, the medical officers operate a 24-hour service. The Regional Hospital Board is responsible for the placing of each recommended case in hospital, and close and cordial co-operation exists between the Department and the officers of the Board. Urgent cases have as formerly received special consideration.

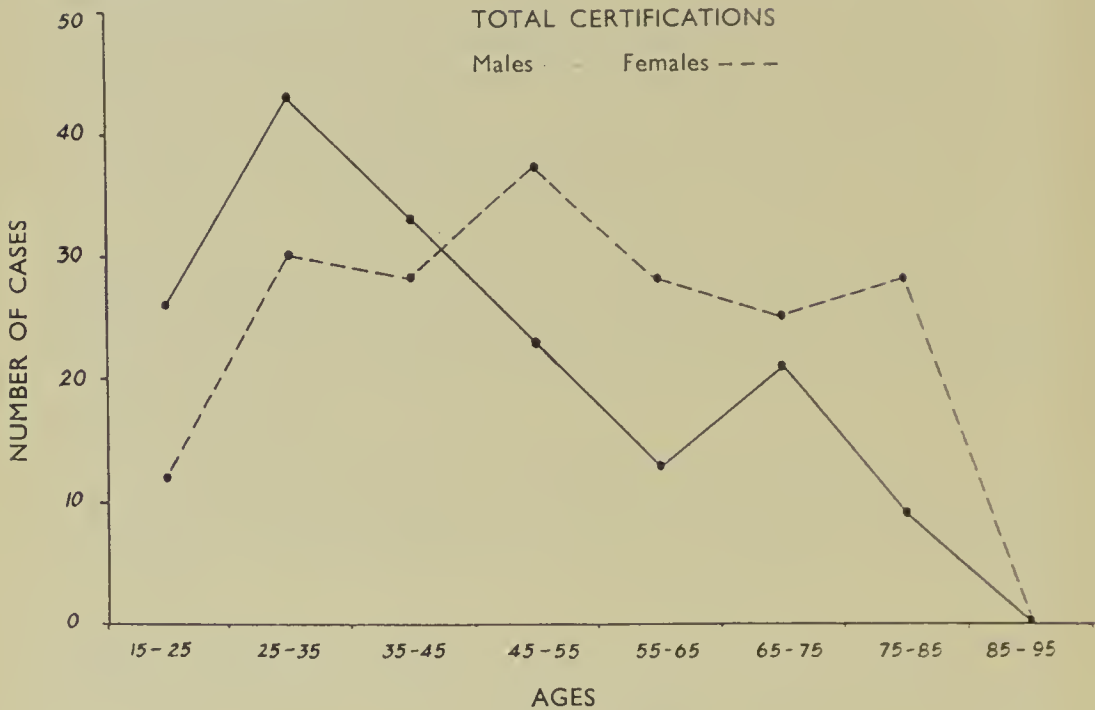
Certification of the insane in H.M. Prisons, Barlinnie and Duke Street is undertaken in addition to that arising in the city as a whole. The statistics for the year are as follows :—

			Prisons		City		Totals		Grand Total
			M.	F.	M.	F.	M.	F.	
Fully Certified	...	...	81	19	86	171	167	190	357
Mental Observation	...	...	1	5	24	22	25	27	52
Not Certified	...	...	1	3	16	60	17	63	80
Certified Institution	...	...	—	—	—	1	—	1	1
Re-certified	...	...	—	—	—	—	—	—	—
Cancelled	...	...	3	—	9	9	12	9	21
			<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
			86	27	135	263	221	290	511
			<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Of the above cases, 69·86 per cent. required full certification, while 10·17 per cent. were found to be suitable for mental observation wards.

It will be observed that over 100 cases were certified from the prisons. As has been pointed out in previous annual reports, the admission of these “Fiscal” cases to ordinary mental hospitals may cause undue strain on the staff in regard to administration and nursing. No solution of this difficulty has as yet been found.

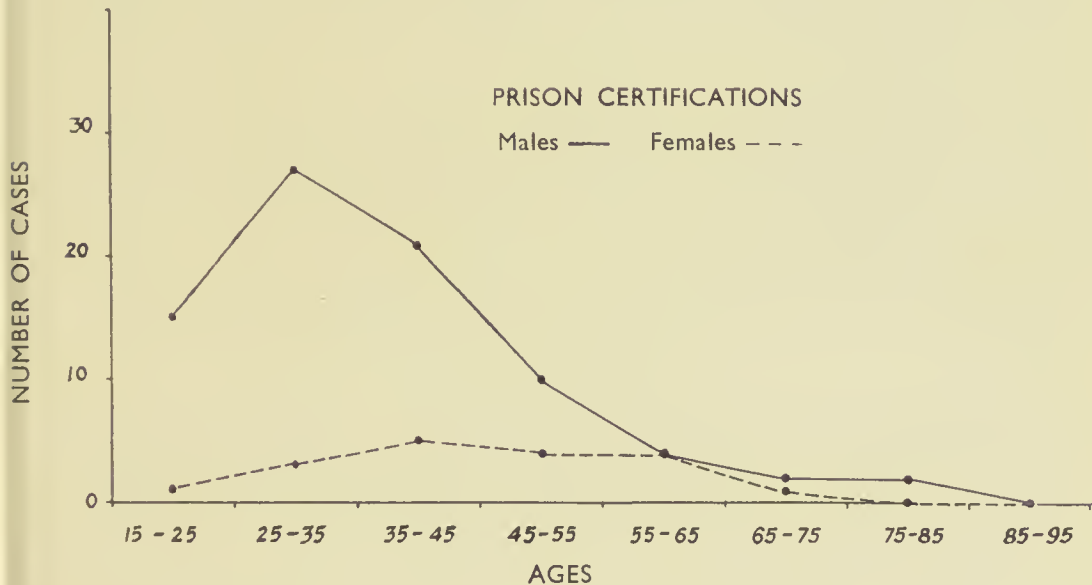
Analysis of the certification figures according to age group and sex shows the following :—



Criminal Justice Act.—Prison cases seen during the year numbered 113. Of these, 75 occurred in the period January to June and only 38 in the period July to December. This difference is accounted for by

the Criminal Justice Act which came into operation at the end of April. Under Section 23 of this Act cases which are reported as "in a state threatening danger to the lieges" or "offensive to public decency" are now dealt with in the courts. In addition, selected cases are dealt with under Section 3, which provides for probation and treatment at a clinic. Since the introduction of the Criminal Justice Act, therefore, the services of the medical officers of the Department have been less in demand for the purpose of examination and certification of mental cases in the prisons.

In the following graph of prison certifications, the influences of sex and age is shown.



The graph shows that young male prisoners account for a large proportion of the total male certifications.

Certification in Mental Hospital.—During December the medical officers, by request, visited the Glasgow Royal Mental Hospital, Gartnavel, on several occasions to examine patients in connection with certification, the Regional Hospital Board having discontinued the former practice of calling in outside practitioners for this purpose.

Results of Mental Examination of Old People (Persons aged 65 years or more).—It has been noticed for some time past that the medical officers were being asked to examine, with a view to certification, fairly large numbers of old people, i.e., persons over the age of 65 years. An

analysis of the position yielded the following information. During 1950 the Mental Services Section dealt with 149 such cases, being 29·80 per cent. of the total cases for the year. The relevant figures are shown below :—

	Certified	Not Certified	Total	Percentage Not Certified
Males	30	22	52	42·3
Females	54	43	97	44·3

Analysis of the various age groups shows the following :—

		Males.	Females.	Total.	
<i>Age 65-70 years—</i>					
Certified ... ..	...	11	10	21	
Not Certified ... ..	...	4	7	11	= 34·37 per cent.
<i>Age 70-75 years—</i>					
Certified ... ..	...	10	15	25	
Not Certified ... ..	...	7	13	20	= 44·44 per cent.
<i>Age 75-80 years—</i>					
Certified ... ..	...	6	18	24	
Not Certified ... ..	...	3	10	13	= 35·13 per cent.
<i>Age 80-85 years—</i>					
Certified ... ..	...	3	10	13	
Not Certified ... ..	...	4	7	11	= 45·83 per cent.
<i>Age 85-90 years—</i>					
Certified ... ..	...	Nil	1	1	
Not Certified ... ..	...	4	6	10	= 90·90 per cent.
		<hr/> 52	<hr/> 97	<hr/> 149	

General Observations and Remarks.—It is the general opinion that full certification for mental hospital should be avoided in the cases of these old people whenever possible. In certain cases, of course, certification is the only solution, as for instance when the patient shows marked mental abnormality. But some degree of mental abnormality frequently occurs in old people solely as the result of physiological change and is manifest in various eccentricities of conduct. The types of case which fall into this category include the mild senile dementia and the individual with some impairment of memory and a growing tendency to neglect reasonable care of his person or house. These cases require only supervision and sympathetic care. It should be borne in mind that this type of case is not suitable for the mental observation wards of a general hospital since so little can be done in the way of treatment, nor is certification justifiable. Cases living alone constitute a special problem. There is an urgent need for some form of intermediate accommodation for these elderly cases such as homes or wards in which they can have adequate care and attention without the necessity for certification.

SECTION VI.

BLIND PERSONS ACTS.

During the year under review the work of the Regional Clinic was carried on under the joint scheme for the West of Scotland prepared in accordance with the provisions of the Blind Persons Act, 1920, for although this Act was repealed by the National Assistance Act, 1948, a joint scheme prepared under the latter Act had not yet been agreed.

The number of patients examined for the first time was 622, while 79 were re-examined. The ophthalmologists attached to the clinic made, during 1950, 222 home visits. Of the total number of cases examined for the first time 455 were certified as being blind.

Applicants for certification were referred to the clinic by diverse agencies. The largest single source was the National Assistance Board who referred for examination 472 persons who had applied to them for increased assistance. The next largest single source was the Mission to the Outdoor Blind, which referred 106 persons. The table below shows the source of candidates for certification :—

Applicants for Blind Pension	...	...	...	...	26
Applicants for increased National Assistance	...	...	...	...	472
Applicants for Technical Training	...	...	...	...	2
Applicants for Free Tramway Pass	...	...	...	...	8
Applicants referred by Mission to Outdoor Blind	...	...	...	...	106
Unclassified	...	...	...	...	8

Table A shows the age and sex distribution of the 622 persons examined for the first time. It will be seen that the heaviest incidence was in the later years of life and that amongst the certified group females considerably outnumbered males. This is in marked contrast to last year when the sexes were almost equally represented.

TABLE A.

Age.	Certified.			Not Certified.		
	Males.	Females.	Total.	Males.	Females.	Total.
—1	—	1	1	—	—	—
1-4	—	5	5	1	—	1
5-15	3	2	5	—	—	—
16-29	7	12	19	4	3	7
30-39	6	5	11	4	1	5
40-49	17	11	28	7	6	13
50-59	17	22	39	5	16	21
60-69	31	59	90	17	17	34
70+	96	161	257	50	36	86
	177	278	455	88	79	167

Of these 622 persons, 261 were resident in the Glasgow area and 74 in Lanarkshire. The next largest single group was from the County of Ayr with 38 cases.

Table B shows the allocation among local authorities of applicants examined during 1950 in the area of the Joint Committee for the Blind:—

TABLE B.

	Certified.			Not Certified.		
	Males.	Females.	Total.	Males.	Females.	Total.
Glasgow	63	121	175	44	42	86
Airdrie	3	2	5	4	5	9
Coatbridge	6	3	9	4	1	5
Hamilton	4	6	10	3	5	8
Motherwell & Wishaw	7	9	16	2	—	2
Rutherglen	3	3	6	—	—	—
Other Lanarkshire	23	42	65	5	4	9
Greenock	8	6	14	2	5	7
Paisley	7	11	18	2	4	6
Port Glasgow	1	3	4	1	—	1
Other Renfrewshire	5	5	10	—	—	—
Dumbarton	7	5	12	1	1	2
Clydebank	2	4	6	1	1	2
Other Dunbartonshire	4	11	15	4	—	4
Falkirk	3	12	15	—	—	—
Stirling	4	3	7	—	—	—
Other Stirlingshire	7	10	17	3	2	5
Ayr	3	1	4	2	—	2
Kilmarnock	3	2	5	1	1	2
Other Ayrshire	9	18	27	5	6	11
Argyll County	2	7	9	1	1	2
Bute County	—	2	2	—	1	1
Dumfries Burgh	3	1	4	3	—	3
Not stated	—	—	—	—	—	—
	177	278	455	88	79	167

As has already been mentioned, 79 cases were re-examined during the year. These were cases examined previously but, owing to some altered circumstance or following the person's own request, were reviewed during 1950.

(a) Certified blind on first examination and decision unaltered on re-examination	...	...	...	...	...	3
(b) Certified blind on first examination and decision reversed on re-examination	...	...	...	...	...	—
(c) Certified not blind on first examination and decision unaltered on re-examination	...	...	...	...	...	17
(d) Certified not blind on first examination and decision reversed on re-examination	...	...	...	...	...	34
(e) Certified blind on second examination and decision unaltered on re-examination	...	...	...	...	...	—
(f) Certified blind on second examination and decision reversed on re-examination	...	...	...	...	...	—
(g) Certified not blind on second examination and decision unaltered on re-examination	...	...	...	...	...	16
(h) Certified not blind on second examination and decision reversed on re-examination	...	...	...	...	...	9
Total						<u>79</u>

Follow-up Scheme.—During the past few years a scheme has been in operation to follow up those patients examined by the Regional Clinic and considered by the examining surgeons as likely to benefit from further treatment. The scheme has been made possible by the co-operation of the Mission to the Outdoor Blind for Glasgow and the South-West of Scotland. The home teachers make special enquiries twice yearly regarding such patients and report progress. When operative or other treatment has been completed, the patient is re-examined and the improvement or otherwise noted. During the year the teachers investigated 66 cases certified blind with the following results :—

Treatment Recommended.	...	TREATMENT CARRIED OUT.				NOT CARRIED OUT.			
		No. of Cases.	Still Blind.	Not now Blind.	Total.	Un- Dicd.	willing.	Unfit.	Others.
Surgical	...	63	4	5	9	5	20	15	14
Medical	...	3	1	1	2	1	—	—	—
		<u>66</u>	<u>5</u>	<u>6</u>	<u>11</u>	<u>6</u>	<u>20</u>	<u>15</u>	<u>14</u>

The large group entitled in the table "unwilling" is composed mainly of elderly people who do not feel inclined, owing to their advanced age, to undertake an operation. The group "others" numbering 14 in the table consists of patients who for some medical reason are not yet ready for operative procedures, e.g., patients whose cataract has not yet "matured."

TABLE C.

CAUSES OF BLINDNESS.

The causes of blindness of the 455 cases certified blind during 1950 are shown in the following table :—

Congenital and Undetermined—

Congenital abnormalities and developmental defects	29
Tumour of globe and orbit	...	...	3
Myopia	...	...	44
Other errors of refraction	...	...	1
Glaucoma, primary	...	...	63
Cataract, primary	...	...	151
Other primary ocular defects (primary detachment)	...	...	8

Infectious and Toxic—

(a) Exogenous :

Ophthalmia neonatorum	...	...	—
Trachoma	...	...	3
Local septic infection of coats of eye	...	...	5
Other local specific infections (gonorrhoea) (mycosis)	...	...	—

(b) Endogenous :

Gonorrhoea	...	...	—
Syphilis, congenital	...	...	7
Syphilis, acquired, including not definitely congenital	...	...	5
Specific fevers (measles)	...	...	1
Meningitis (non-tuberculous), including cerebro-spinal fever	...	...	—
Tuberculosis	...	...	3
Phlyctenular, strumous and similar, not definitely tuberculous	...	...	4
Septicaemia, acute	...	...	—
Septicaemia, chronic ; autotoxic, focal sepsis	...	...	27
Other general infections and organismal diseases	...	...	4

Traumatic and Chemical—

Birth trauma	...	...	...	...	...	...	...	...	1
Non-industrial trauma	...	...	...	...	...	...	...	...	—
Industrial trauma	...	...	...	...	...	...	...	...	3
War trauma	...	...	...	...	...	...	...	...	3
Trauma, category not ascertainable	...	...	...	...	...	...	...	...	—
Chemico-toxic, non-industrial (tobacco)	...	...	...	...	...	...	...	...	1
Scheduled industrial diseases (lead) (pyroxylin) (carbon bi-sulphide) (aniline) (phosphorus) (glass-blowers' cataract) (metal workers' cataract) (miners' nystagmus)	...	...	...	...	...	...	...	...	—
Sympathetic ophthalmia	...	...	...	...	...	...	...	...	2

Systemic Diseases—

Anaemia and blood diseases	...	...	...	...	...	...	...	...	1
Diabetes	...	...	...	...	...	...	...	...	15
Nephritis	...	...	...	...	...	...	...	...	—
Pregnancy	...	...	...	...	...	...	...	...	—
Vascular diseases including cerebral vascular lesions	...	...	...	...	...	...	...	...	56
Intracranial neoplasm	...	...	...	...	...	...	...	...	3
Other diseases of central nervous system	...	...	...	...	...	...	...	...	11
Functional disturbances (hysteria) (malingerings)	...	...	...	...	...	...	...	...	—
Other general diseases	...	...	...	...	...	...	...	...	—

<i>Not Ascertainable Definitely</i>	...	...	...	...	...	...	...	...	1
Total	...	...	...	...	...	...	...	...	<u>455</u>

The largest number is included in the category "Congenital and Undetermined" and the most important individual causes of blindness are cataract, glaucoma, myopia and septicaemia, while congenital abnormalities and vascular diseases account for 29 and 56 cases respectively.

SECTION VII.

PORT HEALTH AUTHORITY.

During the year the amount of foreign and coastwise shipping entering and leaving the Port totalled 18,005, with a tonnage of 12,825,271. Cargoes handled in that period amounted to 5,539,425 tons. Of that figure, 2,789,820 tons were imported from overseas and 1,130,873 tons were exported. Coastwise, 1,618,732 tons were dealt with, 814,219 tons inwards and 804,513 tons outwards.

There was again an increase this year in the number of vessels passing the Boarding Station at Greenock, the figures for the past three years being 1948—1,122; 1949—1,272; and 1950—1,319. Of the total of 1,319 ships arriving, 1,281 were dealt with by the Boarding Officers at Greenock and 38 by the Glasgow staff on arrival at Glasgow. Unfavourable weather conditions and the state of the tide in the river were the reasons for not boarding the 38 vessels at the Boarding Station at Greenock. Of the 1,319 vessels from foreign ports, 833 were from infected and 486 from non-infected ports. In addition to the above, there were 358 arrivals from Eire.

Particulars of arrivals are given in the following table :—

NATIONALITY OF VESSELS ARRIVING DURING 1950.

Nationality.	Ships.	Crews.	Passengers.
Argentine	1	44	—
British	978	53,706	1,132
Belgian	3	45	—
Danish	19	485	8
Dutch	54	800	—
Faroese	1	31	—
Finnish	11	313	—
French	3	103	—
German	3	38	—
Greek	5	154	—
Honduras	2	57	—
Icelandic	7	324	902
Italian	21	664	5
Indian	11	743	—
Iranian	1	44	—
Norwegian	66	1,993	18
Panamanian	18	670	—
Portuguese	1	32	—
Russian	2	82	—
So. African	2	105	—
Spanish	14	536	—
Swedish	45	1,385	32
U.S.A.	50	2,457	19
Uruguayan	1	105	—
Total	<u>1,319</u>	<u>64,916</u>	<u>2,116</u>

TONNAGE OF VESSELS ARRIVING DURING 1950.

Month.					No. of Ships.	Crews.	Net. Reg. Tonnage.
January	...	...	...	...	102	5,119	321,833
February	...	...	...	...	99	5,073	316,208
March	...	...	...	...	107	5,368	352,597
April	...	...	...	...	111	5,384	345,931
May	...	...	...	...	122	6,052	376,552
June	...	...	...	...	102	5,021	339,487
July	...	...	...	...	125	6,635	442,254
August	...	...	...	...	118	5,200	335,380
September	...	...	...	...	101	5,452	326,417
October	...	...	...	...	112	5,000	340,398
November	...	...	...	...	105	5,123	320,407
December	...	...	...	...	115	5,489	359,317
Total	...	...	...	...	1,319	64,916	4,176,781

NATIONALITY OF SHIPS' CREWS ARRIVING DURING 1950.

Month.	British.	Natives of India.	Chinese.	Other Nationalities on British Ships.	Other National- alities.	Total	Passen- gers.
January	... 2,783	1,326	265	159	586	5,119	18
February	... 2,943	1,098	242	168	622	5,073	20
March	... 2,585	1,539	198	213	833	5,368	36
April	... 2,864	1,252	187	233	848	5,384	63
May	... 3,271	1,477	265	217	822	6,052	147
June	... 2,594	1,264	250	79	834	5,021	275
July	... 3,362	1,769	299	107	1,098	6,635	438
August	... 2,991	858	244	103	1,004	5,200	666
September	... 2,977	1,503	64	255	653	5,452	192
October	... 2,452	1,314	195	130	909	5,000	190
November	2,496	1,512	169	84	862	5,123	52
December	2,899	1,143	227	83	1,137	5,489	19
Total	... 34,217	16,055	2,605	1,831	10,208	64,916	2,116

INFECTIOUS DISEASES.

There were no cases of plague, cholera, yellow fever, typhus fever or smallpox found on any vessels arriving at the Port but two cases of suspected smallpox were reported from two vessels outward bound from this area, and two vessels, which arrived coastwise, reported having landed a suspected case of smallpox at other ports during the voyage. Details are as follows :—

A passenger liner on a voyage from India to the United Kingdom landed at Karachi a native seaman believed by the Ship's Surgeon and Port Medical Officers at Karachi to be suffering from smallpox. All passengers and crew were vaccinated and no further cases occurred during the voyage. On arrival at Glasgow, which Port she reached coastwise from another home port, on the 13th March the crew were submitted to medical inspection and kept under surveillance until the 24th March. Disinfection was carried out at Karachi.

On the 3rd April a wireless message through Portpatrick Radio Station was received from the Master of a cargo steamer stating he had a case of suspected smallpox on board and desired medical assistance. The vessel was two-and-half days outward bound on a voyage to the United States of America when the case was discovered and the Master decided to return to the Clyde. On the morning of the 5th she arrived at the mooring station off Greenock and was boarded there by medical staff. The patient, a seaman, was isolated in the ship's hospital where he was examined. He stated he joined the vessel on 31st March feeling well but on 1st April he developed a dry cough and felt slightly unwell. On 2nd April a rash appeared on his chest and face. He reported sick on 3rd April and was found to have a temperature of 100·8 and pulse 77, and the rash had spread over practically the whole of his trunk and his face. At the time of examination on the 5th the rash covered his chest, back, face and to a much lesser extent the upper limbs. It was a pinkish, blotchy rash, present also in the axilla, fading on the abdomen where it had left some staining. The eyes were suffused, and he had slight coryza, and adenitis. The tonsils were enlarged and the crypts purulent. He had been vaccinated successfully in infancy (good mark) and again on 30.3.50 (immune reaction). A diagnosis of measles was made and he was removed to an infectious diseases hospital at Glasgow. After removal of bed, bedding and personal belongings for disinfection, etc., the vessel continued her voyage.

On 22nd April, following the receipt of a wireless message from the Master of a new vessel completing her trials off the Isle of Arran that there was a suspected case of smallpox on board, the vessel was met and boarded at the Tail of the Bank, Greenock, by medical staff. The patient, a tradesman employed by the builders, was isolated in the ship's hospital under the care of the ship's surgeon and the medical officer of the builders. He was sitting up in bed and did not appear to be unwell. He was found to have a papular vesicular eruption involving mainly the back and trunk. There was one papule on the forehead and one on the scalp in the region of the right ear. A few papules were present on the arms and one or two spots on the forearms and legs. There were no lesions in the axillae. Macules, papules, vesicles and pustules were present in various parts of the body and the vesicle were oval in shape with the long axis lying parallel to the natural folds of the body. He had not been vaccinated in infancy and his first vaccination was carried out on 7th April, 1950. As a result of this operation he had a typical primary vaccinal reaction which was at the crusting stage. A diagnosis of chickenpox was made and the patient removed to an infectious diseases hospital in Glasgow. Disinfection, etc., was carried out before the vessel sailed.

On 26th April a passenger vessel on a voyage from India to the United Kingdom arrived at Glasgow via two home ports. On arrival at her first port of call in the United Kingdom on the 16th April, a male child passenger, aged 6 years, suspected to be suffering from smallpox, was removed to hospital. The crew were vaccinated and medically examined but no further cases of illness were discovered. Infected accommodation, etc., was disinfected. The vessel sailed on the 21st and arrived at her second home port on the 22nd April. Two native stewards were removed to hospital on the 25th; one diagnosed as suffering from chickenpox and the other as suspected smallpox.

On arrival at Glasgow unauthorised persons were not allowed on board and others were vaccinated as soon as they came on board. A thorough medical examination of the crew was carried out but no further cases were discovered. The entire crew, company's officials, dockers engaged to discharge cargo and other persons having business with the ship were vaccinated, and kept under surveillance. All beds and bedding from native crew accommodation and ship's hospitals were removed for disinfection and all linen and personal clothing from members of native and European crew were washed and disinfected

before being laundered at a private laundry. Daily surveillance of all contacts was maintained until 1st May when a diagnosis of chickenpox for both stewards was confirmed on bacteriological findings.

Arising from the outbreak of smallpox within the City, demands were heavy for vaccination and for the issue of vaccination certificates on the International Form to crews of vessels and passengers to meet the requirements of health authorities abroad, who, under the circumstances, would demand guarantees that they were adequately protected. In one instance, a shipping company engaged in coastwise traffic requested, during the early stages of the outbreak, that all ratings in their employment, including shore staff, who were not in possession of a valid vaccination certificate, should be vaccinated immediately.

Typhoid Fever.—There were two patients admitted to hospital during the year believed to be suffering from typhoid fever. One, a native seaman, who was found on admission not to be acutely ill, was, after investigation, diagnosed as a typhoid carrier. After continuous treatment which was not successful he was repatriated to his home in India as a chronic carrier.

The other patient, a native seaman on board an oil tanker, was admitted on a diagnosis of typhoid fever and was found on investigation to be suffering from malaria.

Typhoid Fever Contacts.—Seventy-nine native seamen journeying from India to Glasgow to form part of the crew of a vessel which was undergoing extensive repairs, travelled on board the s.s. "Mooltan," on which ship there occurred during the voyage a serious outbreak of typhoid fever. Arriving at the Seamen's Hostel in Queen's Dock they were kept under surveillance from 17th January till 9th February, 1950. No case of illness was found among them during that period.

An unusual circumstance was the cause of an outbreak of diarrhoea on board a vessel undergoing extensive overhaul in the harbour at a riverside berth. The domestic water supply system, including tanks, were overhauled and the tanks were cement washed. A small supply of fresh water for immediate use was taken on board. Complaints about the taste and colour of the water were made and it was found on investigation that the sea cocks had been left open, permitting the

entrance of river water which polluted the water in the tanks. Fortunately, cases were limited owing to there being only a "stand by" crew on board. The water system was cleansed and sterilized and fresh water taken aboard after the error causing the pollution was remedied. The persons affected were not ill enough to require hospitalization.

CASES OF ILLNESS FOUND ON VESSELS ON ARRIVAL AT GLASGOW.

Disease.		Removed to Hospital.	Sent Home.	Referred to Clinic.	Left on Board.	Died.	Total.
Typhoid Fever	...	*1	—	—	—	—	1
Dysentery	... ..	5	—	—	—	—	5
Malaria	... ..	5	—	—	—	—	5
Leprosy	... ..	1	—	—	—	—	1
Scarlet Fever	... ..	2	—	—	—	—	2
Chickenpox	... ..	3	—	—	—	—	3
Tuberculosis	... ..	†3	—	—	—	—	3
Measles	... ..	4	—	—	—	—	4
German Measles	...	2	—	—	—	—	2
Acute Pneumonia	...	7	—	—	—	—	7
Broncho Pneumonia	...	1	—	—	—	—	1
Lobar Pneumonia	...	2	—	—	—	—	2
Pyrexia—Unknown Origin	... ..	4	—	—	—	—	4
Venereal Disease	...	—	—	55	—	—	55
Injuries ... ..	...	4	—	—	2	—	6
Non-Infectious Illnesses		57	1	—	17	—	75
Total	...	<u>101</u>	<u>1</u>	<u>55</u>	<u>19</u>	<u>—</u>	<u>176</u>

* Repatriated to India as a chronic typhoid carrier.

† One native seaman repatriated to India incurable.

CASES OF ILLNESS REPORTED OCCURRING ON VESSELS DURING
THE VOYAGE.

Disease.					How Disposed of.
Appendicitis ...	...	...	...	...	To hospital at St. Vincent.
Septic Hand ...	...	...	...	...	To hospital at Monte Video.
Appendicitis ...	...	...	...	...	To hospital at Rosario.
Gastric Ulcer ...	...	...	...	...	To hospital at Zarate.
T.B. Meningitis ...	...	...	...	...	Died on vessel at Liverpool.
Measles (3 cases) ...	...	...	...	...	Landed at Amsterdam.
Chickenpox (3 cases) ...	...	...	...	...	To hospital—1 at Bombay, 2 at Liverpool.
Abscess Cerebri after Otitis Media ...	...	...	...	...	Died and buried at sea.
Chickenpox ...	...	...	...	...	To hospital at Karachi.
Natural Causes ...	...	...	...	...	Died at Lisbon.
Chickenpox (3 cases) ...	...	...	...	...	To hospital—1 Liverpool, 2 Cardiff.
Sun-stroke ...	...	...	...	...	To hospital at Aden.
Fistula ...	...	...	...	...	To hospital at Liverpool.
Lumbago ...	...	...	...	...	do.
Chickenpox ...	...	...	...	...	To hospital at Karachi.
Appendicitis ...	...	...	...	...	To hospital at Aden.
Undiagnosed ...	...	...	...	...	To hospital at Port Sudan.
Chickenpox ...	...	...	...	...	To hospital at Madras.
Pneumonia (2 cases) ...	...	...	...	...	Died and buried at sea.
Malaria ...	...	...	...	...	do.
Osteoma of Sacral Region ...	...	...	...	...	To hospital at Greenock.
Typhoid Fever ...	...	...	...	...	To hospital at Aden.
Inguinal Adenitis ...	...	...	...	...	To hospital at Malta.
Bronchial Asthma and Cardiac Failure ...	...	...	...	...	Died and buried at sea.
Appendicitis ...	...	...	...	...	Landed at Stornoway.
Measles (8 cases) ...	...	...	...	...	Landed at Amsterdam.
Pneumonia ...	...	...	...	...	To hospital at Belfast.
Typhoid Fever? ...	...	...	...	...	To hospital at Trinidad.
Arterio Sclerosis and Myocardial Degeneration ...	...	...	...	...	Died and buried at sea.
Malaria ...	...	...	...	...	do.
Measles (34 cases) ...	...	...	...	...	Disembarked at Amsterdam.

ALIENS ACT, 1920.

Medical Inspection of Aliens.—There was an increase in the number of vessels carrying alien passengers to the port, but a decrease in the total number of aliens : 85 vessels against 63 and 1,033 aliens against 1,092 last year. Close co-operation was maintained with H.M. Immigration Officers in the examination of these persons. There were no rejections on medical grounds.

The following table shows the nationality of the aliens, together with the numbers :—

Belgian	...	...	...	1	Italian	...	...	6
Chilean	...	...	...	2	Norwegian	...	...	14
Cuban	...	...	...	2	Other Europeans	...	...	8
Danish	...	...	...	48	Polish	...	...	2
Dutch	...	...	...	6	Spanish	...	...	1
Egyptian	...	...	...	1	Swedish	...	...	10
Finnish	...	...	...	5	Swiss	...	...	12
French	...	...	...	11	Stateless	...	...	3
German	...	...	...	9	Uruguayan	...	...	20
Greek	...	...	...	1	U.S.A. Citizens	...	...	356
Icelandic	...	...	...	515				

PARROTS (PROHIBITION OF IMPORT) REGULATIONS (SCOTLAND), 1930.

Nine vessels brought to the port a total of 19 birds which were detained on board and a written undertaking received from the owners to the effect that they would not be landed in this country. The birds consisted of 7 parrots and 12 budgerigars.

RAT DESTRUCTION.

The total number of rats destroyed during the year was 2,696. Of that total, 2,186 were destroyed on board ships—1,721 by fumigation and 465 by trapping—and 510 in sheds and other premises. Four hundred and nine were submitted to the City Bacteriologist for examination for *Bacillus Pestis* with negative result.

Rat-searchers made 2,923 visits to vessels in the Port and 2,738 visits to sheds and other premises. During the visits to sheds and other premises, traps were set on 710 occasions and 510 rats were caught.

The serious infestation of sheds in Princes Dock, caused by storing grain and referred to in last year's report, was cleared following the removal of the grain to premises outwith the dock area. Another infestation at a cargo shed in Rothersey Dock was cleared in the same fashion. The removal was timely and prevented what might otherwise have been a serious infestation. Several adjoining sheds in Stobcross Quay, at present being used as stores, are being kept under close observation. In this case there is a rapid turn-over in the materials stored which is helping to prevent the rats building permanent shelters. Trapping is resorted to continuously and keeps the number of rats to a minimum.

There is only one other place where the rat problem is likely to give any trouble and that is at the premises occupied by the Soya Meal Company at King George V Dock. Ground and other nuts are stored for short periods whilst awaiting treatment for oil extraction. The management are alive to the position and control measures are at present being carried on by a commercial concern specialising in rodent destruction. Should the necessity arise, the measures in operation now will be intensified, or, if the conditions justify such action, other measures will be applied.

Other premises which might become infested are the workers' canteens, but up to the present they have been free from rat infestation.

In the following tables details are shown of the rats destroyed on board ship, in sheds, and other premises within the port area.

ON BOARD SHIP.

Method of Destruction.			Infected Ports.				Non-Infected Ports.				Total
			R. Rattus		R. Norvegicus		R. Rattus		R. Norvegicus		
			M.	F.	M.	F.	M.	F.	M.	F.	
HCN	...	...	942	532	—	—	158	89	—	—	1,721
SO ₂	...	...	—	—	—	—	—	—	—	—	—
Trapping	...	...	215	127	—	—	74	49	—	—	465
			1,157	659	—	—	232	138	—	—	2,186

SHEDS AND OTHER PREMISES.

R. Norvegicus.		R. Rattus.		Total.
Male.	Female.	Male.	Female.	
56	30	249	175	510

In addition to the above 337 mice were found dead after fumigation.

Deratisation and Deratisation Exemption Certificates.—The total number of certificates granted during the year was 397, this figure being greater by 11 than last year. Compared with last year's figures, deratisation certificates were fewer and exemption certificates greater. There were 111 deratisation certificates this year and 122 last year. Figures for exemption certificates were 286 as against 264 last year. Of the 111 deratisation certificates issued, 99 were granted, following satisfactory fumigation, and 12 after trapping. Thirty-eight of the total number of certificates were granted to new vessels prior to sailing on their maiden voyage. Two of this number required fumigation and on another trapping was sufficient.

HYGIENE IN CREWS' QUARTERS, ETC.

Inspection and re-inspection of vessels arriving in Port resulted in the discovery of 786 defects, the majority of which were remedied before the departure of the vessels for other ports. In 33 instances where repairs had not been completed before sailing, communications were sent to the authorities concerned at the next port of call in the United Kingdom. One hundred and seven intimations in terms of the Public Health (Scotland) Act, 1897, were served and 150 verbal intimations were given in respect of defects discovered on board 257 vessels.

The following table shows the type of defects and the number and nationality of vessels on which they were discovered :—

					Coasters.	Foreign Arrivals.	Totals.
<i>General Neglect—</i>							
Drinking Water Tanks	...	...	...	...	—	2	2
Accumulations of Garbage	...	...	...	...	—	28	28
Gear in Sleeping Compartments	...	...	...	...	—	—	—
					<hr/>	<hr/>	<hr/>
					—	30	30
					<hr/>	<hr/>	<hr/>
<i>Structural Defects—</i>							
Ports or Deadlights leaking	...	...	...	...	3	23	26
Deckheads leaking	...	...	...	...	3	27	30
Heating Apparatus defective	...	...	...	...	—	13	13
Floors broken	...	...	...	...	—	4	4
Lighting defective	...	...	...	...	—	—	—
Ventilation defective	...	...	...	...	—	—	—
Food Locker Doors broken	...	...	...	...	2	6	8
Steampipes leaking	...	...	...	...	1	19	20
					<hr/>	<hr/>	<hr/>
					9	92	101
					<hr/>	<hr/>	<hr/>

<i>Wash Places and Water-Closet Compartments—</i>	Coasters.	Foreign Arrivals.	Totals.
Seats broken or missing	4	22	26
Doors broken or defective	1	18	19
W.C. Basins broken	—	3	3
Lighting defective	—	—	—
Ventilation defective	—	1	1
Wash Basins broken	—	1	1
Soilpipe or Storm Valve defective	—	21	21
Floors broken	—	1	1
	<u>5</u>	<u>67</u>	<u>72</u>

Functional Neglect—

Paintwork dirty	1	29	30
Floors and Woodwork dirty	1	37	38
Tables and Benches dirty	3	42	45
Alleyways dirty	1	45	46
Food Lockers dirty	3	53	56
Verminous condition	1	197	198
Galleys dirty	—	6	6
Scuppers choked	2	23	25
Accumulation of Rubbish	—	25	25
Beds and Bedding dirty	1	2	3
	<u>13</u>	<u>459</u>	<u>472</u>

Wash Places and Water-Closet Compartments—

Troughs of W.C. Basins foul or choked	—	20	20
Floors or Woodwork dirty	—	9	9
Paintwork dirty	—	17	17
Scuppers choked	3	22	25
Flushing Apparatus defective	—	26	26
Wash Basins dirty or choked	—	14	14
	<u>3</u>	<u>108</u>	<u>111</u>
	<u>30</u>	<u>756</u>	<u>786</u>

NUMBER AND NATIONALITY OF VESSELS ON WHICH DEFECTS WERE
DISCOVERED.

Nationality.					No. of Arrivals.	No. Showing Defects.
Argentinian	...	...	...	...	1	—
British	...	...	...	...	978	214
Belgian	...	...	...	...	3	1
Costa Rican	...	...	...	...	—	—
Chinese	...	...	...	...	—	—
Danish	...	...	...	...	19	—
Dutch	...	...	...	...	54	—
Faroese	...	...	...	...	1	—
Egyptian	...	...	...	...	—	—
Finnish	...	...	...	...	11	—
French	...	...	...	...	3	—
German	...	...	...	...	3	—
Greek	...	...	...	...	5	—
Honduras	...	...	...	...	2	—
Icelandic	...	...	...	...	7	—
Indian	...	...	...	...	11	6
Italian	...	...	...	...	21	4
Iranian	...	...	...	...	1	—
Norwegian	...	...	...	...	66	5
Panamanian	...	...	...	...	18	2
Polish	...	...	...	...	—	—
Portuguese	...	...	...	...	1	1
Russian	...	...	...	...	2	—
South African	...	...	...	...	2	—
Spanish	...	...	...	...	14	3
Swedish	...	...	...	...	45	1
Turkish	...	...	...	...	—	—
U.S.A.	...	...	...	...	50	2
Uruguayan	...	...	...	...	1	—
Yugo Slav	...	...	...	...	—	—
					<u>1,319</u>	<u>239</u>

Rags, Hair, Hides and Bones.—The following table shows the amount of imported rags, hair, hides and bones, the number of shipments and the country of origin :—

Source of Origin.	No. of Rags		No. of	Hair	No. of	Hides	No. of	Bones
	Ships.	Bundles.	Ships.	Various Bundles.	Ships.	Various Bundles.	Ships.	Bags
Australia ...	—	—	2	8	—	—	—	—
Belgium ...	4	128	2	86	2	68	—	—
Egypt ...	14	6,515	—	—	—	—	5	3,934
Italy ...	3	1,137	—	—	1	150	1	807
India ...	—	—	—	—	1	45	2	164
Malta ...	—	—	—	—	—	—	1	302
South Africa	—	—	—	—	3	27	6	1,118
South America	—	—	8	490	2	1,642	6	107,625
United States	—	—	17	13,290	1	85	—	—

Anthrax.—Two specimens of cow hair from a consignment from South America and three specimens of dry-salted goatskins from a consignment from India were submitted to the City Bacteriologist who reported all specimens free from *B. anthracis*.

No cases of anthrax were reported among the persons engaged on the discharge of the above articles.

IMPORTED FOOD REGULATIONS.

During the year approximately 523,736 tons of foodstuffs arrived at the port from overseas. In addition, 31,949 tons arrived on coasting vessels trading within the British Isles and Eire. Of the total quantity shown above, 4,177 cwts. 28 lbs. were found unsuitable for human consumption and were disposed of either for animal feeding or technical purposes or were destroyed.

Two hundred and thirty-nine samples of foodstuffs were submitted to the City Analyst who reported 45 unsatisfactory. Ten samples were submitted for bacteriological examination, two of which were found to be unsatisfactory. These two samples consisted of fruit cake which was heavily affected with mould.

The cargoes of foodstuffs arriving at the port were, with few exceptions, in good condition. Consignments of fruit cake from Australia found to be affected with mould in varying degrees caused 100 per cent. examinations to be carried out and much time and labour were spent on these very necessary examinations. Additional labour

had to be provided by the importers to open up cases, remove cartons from cases, and each cake from cellophane wrapping in order to detect the mould.

Cargoes of canned and other products either damaged during transit or "blown" as a result of fermentation were turned over wherever possible in the cargo sheds, and all damaged material removed before distribution.

Some 35,000 cases of sultana raisins were found to contain mineral oil, in contravention of the Mineral Oil in Food Order, 1949. The Ministry of Food were advised and subsequently a temporary amendment to the above Order was made which permitted the presence of one part by weight of mineral oil per 100 parts by weight of dried fruit.

Small quantities of fondant confectionery from Australia were found on analysis to contain mineral oil. The importers were informed of the presence of the oil and their attention drawn to the Mineral Oil in Food Order. As the fondant was for use in the bakery trade it was unlikely that the finished article would contain mineral oil in excess of the amount laid down in the Order. They agreed, however, to request the manufacturers to use in future a vegetable oil in the preparation of the fondant.

A large quantity of "Pastry Mixture" was condemned on account of the presence of mould and a high "free fatty acid" content.

Part of a consignment of glucose confectionery from Ireland found on arrival to be contaminated with formaldehyde, was considered to be unsuitable for human consumption and destroyed.

A consignment of alleged fruit juice containing 3-400 parts of benzoic acid preservative was found on analysis to consist of cane sugar syrup and fruit flavouring. The importers were informed that such mixtures could not be imported under Item 5 of the First Schedule to the Preservative in Food Regulations, as the alleged fruit juice was not a true fruit juice but a cane sugar syrup. As such it would fall to be classified under Item 8, which does not permit benzoic acid as a preservative but allows 70 p.p.m. of sulphur dioxide.

Table "A" shows the character and quantity of foodstuffs imported direct, while Table "B" deals with that arriving coastwise during 1950.

TABLE "A."

Article.				Weight. Tons. Cwt.		Article.				Weight. Tons. Cwt.	
Apples	...	...	...	15,410	3	Lard	...	...	...	2	9
Acids	...	...	...	118	15	Lemons	...	...	...	1,660	17
Bacon	...	...	...	461	10	Liquorice	...	...	...	57	13
Bananas	...	...	...	2,523	—	Maize	...	...	...	94,827	—
Barley	...	...	...	44,909	—	Meats (Canned)	...	...	...	1,976	5
Butter	...	...	...	11,462	18	Melons	...	...	...	651	5
Cheese	...	...	...	8,698	2	Milk (Canned)	...	...	...	399	2
Coffee	...	...	...	10,699	—	Milk (Dried)	...	...	...	1,199	2
Cocoa	...	...	...	1,600	—	Mincemeat (Fruit)	...	...	...	191	7
Condiments	...	...	...	141	17	Nuts (Various)	...	...	...	27,063	16
Confectionery	...	...	...	538	13	Oats	...	...	...	9,000	—
Cream of Tartar	...	...	...	41	8	Oils (Various)	...	...	...	112	15
Eggs	...	...	...	106	16	Onions	...	...	...	6,642	18
Egg Powder	...	...	...	3,057	2	Oranges	...	...	...	27,506	4
Eggs (Frozen)	...	...	...	349	1	Orange and Lemon Peel	...	...	...	253	16
Egg Pulp	...	...	...	316	15	Pastry Mixture	...	...	...	193	5
Fish (Canned)	...	...	...	4,693	—	Peas	...	...	...	2,947	15
Fruits (Canned)	...	...	...	5,011	1	Potatoes	...	...	...	5,154	15
Fruits (Dried)	...	...	...	14,505	6	Pomegranates	...	...	...	161	18
Fruit Juice	...	...	...	1,241	12	Rice	...	...	...	12,613	18
Fruit Pulp	...	...	...	1,248	16	Syrup (Fruit)	...	...	...	939	14
Fruit Cake	...	...	...	602	9	Sundries	...	...	...	185	5
Flour	...	...	...	34,346	—	Soups	...	...	...	2,612	3
Farinaceous Foods	...	...	...	1,251	17	Tea	...	...	...	4,867	12
Fats	...	...	...	86	—	Tomatoes	...	...	...	238	11
Gelatine	...	...	...	15	11	Tomatoes (Canned)	...	...	...	453	4
Ginger (Preserved)	...	...	...	388	4	Tomato Juice	...	...	...	3	1
Grapes	...	...	...	1,596	7	Tomato Puree	...	...	...	2,435	10
Grape-Fruit	...	...	...	1,476	18	Tomato Sauce	...	...	...	24	18
Ham	...	...	...	40	—	Vegetables (Canned)	...	...	...	2,047	11
Honey	...	...	...	32	14	Wheat	...	...	...	148,258	—
Jams and Jellies	...	...	...	2,085	10						

Total Weight—523,736 tons, 14 cwt.

TABLE " B."

Article.	Weight. Tons. Cwt.	Article.	Weight. Tons. Cwt.
Aerated Waters ...	600 —	Hams	1,920 9
Apples	3,313 3	Honey	5 5
Acids	67 9	Jams and Jellies ...	400 5
Bacon	10 12	Lemon Curd	299 14
Beans	553 19	Meats (Canned)... ..	740 10
Coffee	19 18	Meats (Prepared) ...	60 18
Condiments	68 3	Milk (Fresh)	68 15
Cheese	59 18	Milk (Canned)	1,510 —
Confectionery	380 15	Milk (Dried)	258 10
Cream of Tartar ...	1 —	Mincemeat (Fruit) ...	460 —
Desiccated Cocoanut ...	44 14	Nuts (Various)	63 —
Eggs (Liquid)	56 5	Oils (Various)	7 10
Eggs	2,719 10	Peas	450 19
Fruits (Canned)	2,593 12	Potatoes	555 —
Fruits (Dried)	42 14	Rice	47 17
Fruit Juices	66 16	Syrup (Fruit)	42 10
Fruit Pulp	222 5	Sausage Meat	81 15
Fruits (Fresh)	261 16	Sugar	1,796 16
Fruit Cake	529 10	Soups	316 13
Flour	9,266 14	Sundries	236 5
Fats	335 10	Spaghetti	68 10
Farinaceous Foods	354 —	Vegetables (Canned) ...	926 15
Gelatine	16 11	Vegetables (Fresh) ...	45 —
Ginger (Preserved) ...	2 8		

Total Weight—31,949 tons, 18 cwt.

The following foodstuffs were found unfit and disposed of to the satisfaction of the Port Medical Officer :—

Article.	Weight. Cwts. Qrs.	Articles.	Weight. Cwts. Qrs.
Apples	4 2	Meats (Pickled)... ..	2 —
Condiments	— 3	Maize	66 2
Confectionery	7 1	Meal	1 —
Desiccated Cocoanut ...	2 1	Nuts	— 2
Fruit Pulp	35 —	Orange Juice	2 3
Fruit Juice	2 —	Oranges	6 —
Flour	1,544 3	Onions	22 —
Farinaceous Foods	43 3	Pastry Mixture	179 3
Fruits (Dried)	226 2	Peas	2 2
Fruits (Canned)	56 1	Potatoes	281 2
Fruit Cake	146 —	Rice	18 2
Fish	— 1	Soups (Canned)... ..	27 2
Fats	2 2	Tomato Puree	4 1
Jams	3 2	Tomato Paste	2 —
Milk (Canned)	13 1	Vegetables (Canned) ...	3 2
Meats (Canned)	— 2	Wheat	1,468 —

Total Weight—4,177 cwts., 1 qr.

(Note—75 cwts. 3 qrs. were from ships' stores.)

FOODSTUFFS EXAMINED BY CITY ANALYST.

Article.	Fit for Human Con- sumption.	Unsatisfactory or not in Conformity with Regulations.	Remarks.
Apples	16	8	Contained an excess of arsenic from 2 to 7 parts per million.
Apricot Pulp	1	—	
Butter	3	—	
Confectionery	14	3	Two samples contained mineral oil, and one formaldehyde $7\frac{3}{4}$ cwts. condemned.
Cream of Tartar	2	—	
Citric Acid	2	—	
Desiccated Cocoanut	1	—	
Egg Powder	6	—	
Farinaceous Foods	3	—	
Fats (Various)	8	—	
Fish (Canned)	14	—	
Fruit Cake	2	3	Mouldy— $145\frac{1}{4}$ cwts. condemned.
Fruits (Canned)	11	—	
Fruits (Dried)	36	16	Two samples contaminated with dirt—191 cwts. condemned ; one sample damp and mouldy—6 cwts. condemned ; 13 samples contained mineral oil.
Fruit Juice	3	4	Contained an excess of SO^2 .
Fruit Plup	—	1	Contained an excess of metallic tin.
Gelatine	1	—	
Grape Fruit Juice	—	1	Contained an excess of SO^2 .
Ginger (Preserved)	4	—	
Honey	1	—	
Jams and Jellies	7	—	
Lemon Juice	—	1	Contained an excess of SO^2 .
Meats (Canned, etc.)	8	—	
Meat (Minced)	—	1	Contained an excess of acetic acid.
Milk (Canned)	1	—	
Milk (Dried)	1	—	
Oils	1	—	
Oranges	5	—	
Orange Juice	3	1	Contained an excess of SO^2 .
Peel	6	—	
Pastry Mixture	11	4	Contained an excess of free fatty acids— $179\frac{3}{4}$ cwts. condemned.
Soups	1	—	
Syrups	7	1	Contained an excess of Benzoic Acid.
Tea	3	—	
Tomatoes (Canned)	1	—	
Tomato Puree	3	—	
Tomato Paste	2	1	Contained an excess of copper.
Vegetables (Canned)	6	—	

Food Insect Pest Disinfestation.—At the request of the Department of Agriculture, Insect Pest Infestation Section, 7 vessels were treated with concentrations and exposures varying from 8 to 10 ounces per 1,000 cubic feet and 8 to 22 hours respectively for the destruction of food insect pests in the cargo spaces. At the same time compartments other than those infested with insect pests but necessary to qualify for a Deratization Certificate were treated, after which Deratization Certificates were granted.

CHARLES RANDALL.

Senior Port Inspector.

The following statement submitted by the Corporation Veterinary Surgeon indicates the work done under the Imported Food Regulations during 1950.

EXAMINED.

<i>Beef—</i>				<i>Offal—</i>			
Quarters	...	...	184,937	Ox Hearts, Bags	...	2,295	
Cuts	...	...	21	Ox Livers, Bags	...	10,072	
Bags	...	...	55,796	Ox Stomachs, Bags	...	4,032	
Crops	...	...	4,547	Ox Kidneys, Bags	...	2,225	
<i>Veal—</i>				Ox Tails, Bags	...	2,390	
Quarters	...	...	51	Ox Skirts, Bags	...	504	
Bags	...	...	3,535	Ox Sweetbreads, Bags	...	318	
<i>Mutton—</i>				Ox Brains, Bags...	...	27	
Carcases	...	...	156,263	Calf Tongues, Bags	...	347	
Bags	...	...	3,350	Calf Hearts, Bags	...	47	
<i>Lamb—</i>				Calf Livers, Bags	...	331	
Carcases	...	...	665,381	Calf Livers, Boxes	...	1,174	
Bags	...	...	1,152	Calf Kidneys, Bags	...	180	
<i>Pork—</i>				Calf Sweetbreads, Bags	...	6	
Sides	...	...	20,310	Sheep Tongues, Bags	...	522	
Bags	...	...	23,907	Sheep Hearts, Bags	...	1,504	
<i>Bacon—</i>				Sheep Livers, Bags	...	276	
Bales	...	...	4,738	Sheep Livers, Boxes	...	3,090	
<i>Poultry—</i>				Sheep Kidneys, Bags	...	347	
Mixed, Boxes	...	...	1,565	Sheep Casings, Tierces	...	43	
Fowls, Crates	...	...	223	Lamb Tongues, Bags	...	640	
Chickens, Crates	...	...	193	Lamb Hearts, Bags	...	3,784	
Turkeys, Crates	...	...	200	Lamb Hearts, Boxes	...	158	
<i>Rabbits—</i>				Lamb Livers, Boxes	...	12,291	
Rabbits, Crates	...	...	3,010	Lamb Kidneys, Bags	...	5	
<i>Fish—</i>				Lamb Sweetbreads, Bags	...	302	
Cartons	...	...	20,416	Lamb Casings, Tierces	...	115	
Bags	...	...	1,905	Lamb Brains, Bags	...	137	
Tons	...	...	150	Pig Heads, Bags	...	1,356	
Large Halibut	...	...	41	Pig Tongues, Bags	...	218	
<i>Offal—</i>				Pig Hearts, Bags	...	693	
Ox Tongues, Bags	...	...	5,351	Pig Livers, Bags	...	228	
Ox Tongue Roots, Bags	...	...	1,166	Pig Livers, Boxes	...	1,810	
Ox Cheeks, Bags	...	...	578	Pig Stomachs, Bags	...	260	
				Pig Kidneys, Bags	...	845	
				Pigcasings, Tierces	...	5	
				Pig Jowls, Bags	...	161	
				Pig Ears, Bags	...	67	

CONDEMNED.

<i>Beef—</i>				<i>Pork—</i>			
Quarters	...	...	31	Quarters	...	...	1
Bags	...	...	34	Bags	...	...	1
Lbs., Trimmings	...	...	33	Lbs., Trimmings	...	...	18
<i>Mutton—</i>				<i>Offal—</i>			
Bags	...	...	1	Ox Tongues, Lbs.	...	...	2
Lbs., Trimmings	...	...	122	Ox Livers, Bags	...	...	1
<i>Lamb—</i>				Ox Sweetbreads, Bags	...	...	8
Carcases	...	...	4	Sheep Kidneys, Bags	...	...	6
Bags	...	...	1	Lamb Hearts, Bags	...	...	1
Lbs., Trimmings	...	...	100				

One of the major problems in the building of houses in Glasgow which must be solved at a not too distant date is the availability of suitable sites. In order to utilise existing sites to the full and particularly where there are areas of ground unsuitable for building, it has been necessary to provide up to 98 per cent. of the total dwellings in three and four-storey tenements. While it is true that the years after the 1914-18 war saw the departure from the construction of tenements and the building of a high proportion of cottages with gardens, it would appear that the pendulum is now swinging to the other extreme. The result of a thorough survey of the city would appear to indicate that within a period of five years all available sites will have been used. It is improbable that any assistance will be found in the redevelopment of central sites as owing to the overcrowding within the dwellings and on the sites the area left vacant after demolition can seldom provide space for more than one-quarter or one-third of the original houses. Central development, therefore, necessitates sites being found outwith the area for accommodation for three out of four families.

The deterioration of the older type of house property continues to exercise the Local Authorities in Scotland. It has been found necessary to condemn either as dangerous or as unfit a further number of buildings and the wastage of houses over the last six years has reached 2,953. Details are shown in the following table :—

Year		Medical Officer of Health Closing Order	Demolition Order	Total	Master of Works Dangerous	Grand Total
1945	...	3	10	13	232	245
1946	...	12	14	26	15	41
1947	...	160	114	274	355	629
1948	...	2	43	45	471	516
1949	...	15	90*	105	718	823
1950	...	68	100	168	531	699
Total	...	260	371	631	2,322	2,953

* Note correction for year 1949.

Recently an excellent review of the problem of deterioration was submitted to the Annual Conference of the Scottish National Housing and Town Planning Council by Mr. William Gordon, Town Clerk Depute, Glasgow. In view of the increasing importance of this subject at the present time the article is reproduced here, with consent of the author.

THE PROBLEM OF ABANDONED PROPERTIES.

1. Lord Cooper recently quoted the following remark of an American judge—"This old world in its writhings and twistings has turned completely upside down—a rather undignified posture suggesting and provoking a good spanking." The remark is true as regards housing economics, and one of the consequences is the abandoned house property. Forty years ago there were many empty houses but few abandoned by their owners. To-day there are no empty houses yet many have been abandoned by their owners.

2. History provides us with evidence that the problem of the abandoned house has arisen before. The following passage from an "Act anent ruinous houses in Royal Burghs," 1663, was quoted in the Report of the Scottish Housing Advisory Committee on Modernising Our Homes—

"There be many houses . . . very ruinous and not inhabited these diverse yeers bygone nor likely to be repaired be any to the great approprie . . . and common scandall of the Kingdome As being altogether defective . . . To cause wairne and charge all persons . . . to cause build and repair in a decent way within yeer and day such houses and building as have been waste and not inhabited three yeers . . . Or els to sell the same to others to be builded within the same space of yeer and day And . . . if they failyie The said Provest and Baillies shall cause the saids lands and tenements to be valued . . . and sell the same to any persons that will buy them . . . And if no man will buy them It shall be lawfull to the said Provest and Baillies . . . To case down the said ruinous houses and cause build the same of new . . ."

The Committee had no information as to how far these legislative provisions were effective.

3. While the object of this Paper is to consider the problem of house property actually abandoned, this problem cannot be dissociated from the preliminary stage of its development, when the properties are deteriorating either as the result of lack of repairs and maintenance or as the result of old age or malicious damage. The two are inseparable, and the observations in the Paper deal with the matter on that basis.

The ramifications of the problem are extensive. The combinations and permutations of circumstances are manifold and each property must be separately considered. Beyond very restricted limits a uniform policy of treatment cannot be adopted.

CAUSE AND NATURE OF THE PROBLEM.

4. There are many economic and administrative troubles to-day which are attributed to the conditions which exaggerate them rather than to the conditions which cause them.

While economic factors must be accepted as the proximate cause of the problem, it must be kept in mind that the improved standard of housing after the 1914-18 war by one stroke rendered obsolete the bulk of the pre-war houses of one and two apartments. The immediate trouble lies in these houses. They lacked the standards of the new houses, did not enjoy their amenities, were old, and by their great contrast with the new houses became undesirable to the tenants. It is not too exaggerated an assertion that, had a sufficient number of new houses been constructed in the period between the wars, all of the houses being or likely to be abandoned would have been out of use. The housing problem still existed in an acute form before the beginning of the second world war, and the position to-day is, if anything, worse, and as a consequence these old houses are still occupied. It is the shortage of housing accommodation which is the basic cause of the trouble. This shortage must be accepted as inevitable for some time to come, and, while it remains, it is obviously necessary that the sub-standard house should be saved and the accommodation made as satisfactory as possible. The danger lies in the fact that the rate of deterioration and abandonment may exceed the rate of provision of new housing accommodation required to replace old houses.

5. At a meeting between representatives of the Glasgow Corporation and the Property Owners and Factors Association (Glasgow) Ltd., the Secretary of the Association said that there were in Glasgow

approximately 200,000 pre-1914 houses controlled by the Rent Restriction Acts. The maximum permitted increase of rent was 47½ per cent. Owners' rates had increased by 222 per cent. of the 1914 figure, and the cost of repairs by 500 per cent. of the 1914 figure. As a consequence, in at least 30,000 houses, losses were being incurred. In the case of the other houses, they were just making ends meet despite the fact that essential repairs were not being carried out. This, allied with the fact that during the war there was no opportunity for carrying out repairs because of the shortage of labour and materials, had resulted in the stage being reached where house property had deteriorated and owners were abandoning in certain instances.

6. While the statements of the Association were not doubted by the Corporation, reports were called for in order to confirm the statement that losses were being incurred, and a statement prepared by the City Chamberlain showed the revenue and expenditure on 27 old properties acquired by the Corporation as follows :—

Revenue—

Rents	...	...	...	...	...	...	£5,219	
Rates (Occupiers)	...	...	...	...	...	...	2,345	
							<hr/>	£7,564

Expenditure—

Repairs	...	...	...	...	...	...	£3,208	
Rates (Owners and Occupiers)	...	...	...	...	...	...	3,802	
Commission and Sundries	...	...	...	...	...	...	613	
Property Tax	...	...	...	...	...	...	1,124	
							<hr/>	8,747
Deficit	...	...	...	...	...	...	...	£1,183
								<hr/>

7. If the statement of the Factors Association is accepted, then the problem of deterioration extends in a greater or lesser degree to 200,000 houses in the City of Glasgow. This represents two-thirds of the whole number of houses in the city. The immediate problem does not affect anything like so many houses, but it is nevertheless formidable. If, as the Association suggest, the rate at which houses are

deteriorating and being abandoned will continue with ever increasing momentum, then Glasgow alone will be faced with a problem affecting anything up to two-thirds of the whole housing accommodation in the city.

8. As the deterioration develops, a loss becomes inevitable, and the owner wants to rid himself of the property. At this stage he very often offers to convey the property to the local authority free of price, but subject to ground burdens. If the local authority accept, the problem of the abandoned property does not arise; but the local authority may decline the offer, in which case the owner has to carry the burden or to abandon the property.

9. The term "abandon" is used as a popular term. In law the owner cannot abandon a property, but the term is now freely used, and it is of interest to examine the different circumstances in which property is regarded as abandoned.

- (a) The owner forms a private limited liability company with nominal capital, and conveys the property to the company. As the liability of a company is limited to its funds, when these funds are finished the property can be abandoned and there is no remedy of any avail against the company. This is the modern equivalent of the old idea of conveying to a man of straw.
- (b) The owner has no funds and the property is showing a loss, or the owner dies with no estate other than the property, and the heirs, in view of the risk that property entails, decline the succession.
- (c) The owner, sustaining a loss on the property and seeing no sign of recouping himself, abandons the property by instructing the factor to cease collecting rents. In such a case, he normally refuses to do anything to the property, and does his best to avoid meeting any of the obligations arising from the ownership thereof. If he has funds he cannot easily avoid these obligations.

10. As and when a property has been abandoned, the tenants pay no rent, and no maintenance or repairs are carried out. Nuisances develop and the property rapidly deteriorates until it becomes not only unfit for human habitation but dangerous.

TREATMENT OF THE PROBLEM.

The Position before Abandonment.

11. The Property Owners Federation maintained that the solution lies in housing being made an economic proposition, and that this can only be affected by an increase in the permitted rent under the Rent Restriction Acts.

12. As an alternative to an increase in the permitted rent, it has been suggested that a solution could be found by abolishing owners' rates. The rates must be levied to meet the cost of the services provided and, if the owners' rates were abolished the amount thereby lost would require to be met by the occupiers. As the law stands, the rating authority can grant remission of rates on the ground of poverty or inability to pay.

13. As a further alternative, it has been suggested that tenants should be made responsible for the internal repairs. This again is a method of increasing the rent. It has some advantage in that it would reduce carelessness or even wilful damage on the part of the tenant.

14. Since the solutions suggested by the owners are not within their own control, and, in any case, are politically remote, the owners look round for more immediate relief, and they have it in a form which is viewed with mixed feelings. They sell any houses which become vacant. This has become a widely adopted policy in Glasgow, and it has a crumb of comfort in that the prospect of making some money in this way is some encouragement to the owners to preserve and retain house property. It can scarcely be said that the object of the Rent Restriction Acts was to discourage letting and to encourage selling, yet that is one of the effects. It does seem inconsistent to restrict rents of houses at an uneconomic level and yet to permit "scarcity" prices to be realised on the same houses as soon as they fall vacant. The following information relates to houses sold within recent months, all of them being houses in tenements and controlled by the Rent Restriction Acts :—

- (a) Eight single-apartment houses with rents varying from £7 15s. to £12 10s. per annum were sold at prices ranging from £80 to £210.

- (b) Twelve two-apartment houses with rents ranging from £13 15s. to £21 per annum were sold at prices ranging from £250 to £650.
- (c) Eleven three-apartment houses with rents varying from £26 5s. to £32 10s. per annum were sold at prices ranging from £600 to £1,350.

15. The Scottish Housing Advisory Committee Sub-committee on Modernisation in their Report in 1947 recommended a grant to assist owners. The Government accepted the recommendation, and in the 1949 Act provided for grants of 50 per cent. to owners carrying out major repairs or improvement works on houses provided the cost was not less than £100 and not more than £600 per house. These provisions have had little or no effect in the West of Scotland, and it is well known that they do not induce owners to proceed with either major repairs or alterations.

16. In so far as economic impulses fail to induce owners to maintain their property, the Corporation can compel them to carry out "running repairs" by action under the nuisance provisions of the Public Health (Scotland) Act, 1897, and under various provisions of the Glasgow Streets, Sewers and Buildings Consolidation Order, 1937. The repair provisions of the Housing (Scotland) Act, 1950, cannot be invoked because the houses cannot at a reasonable expense be made fit for human habitation. The exercise of the powers in the Public Health Act and in the 1937 Order in itself presents administrative problems. In the course of the year 1949 in Glasgow 300,000 intimations of nuisances in houses were given to owners, 125 notices were served under the authority of the Corporation, and in 22 instances petitions had to be presented to the Court as the ultimate method of forcing the owners to abate the nuisances. Some 10,000 intimations of minor structural disrepair were given to proprietors by the Master of Works, and 3,065 notices calling for major repairs were issued by him under the 1937 Order during the year, May 1948/49. These notices referred to defective footpaths, chimney-heads, roofs, common stairs and passages, ashbin shelters and other appurtenances of housing property. In the majority of cases repairs were carried out by the proprietors, but in approximately 60 cases proceedings had to be taken in the Dean of Guild Court.

17. In one case repairs have been carried out by the Corporation with the consent of the Secretary of State under s.339(1) of the Local Government (Scotland) Act, 1947, and by arrangement with the owners the cost is to be repaid from surplus rents. While this arrangement proved satisfactory, it is not recommended that it should be generally adopted. The property in question contained 13 houses and shops, with a rental of £466 5s., and the repairs to make the building safe, cost £270. This sum was recovered, but shortly thereafter another part of the building became unsafe and a further £210 has been spent.

18. When all other methods of treatment are of no avail, the owner may, before abandoning, offer to convey the property to the local authority free of price. To decline such an offer may seem like looking a gift horse in the mouth, but this is not so. There are various points to be kept in mind when considering the offer. Glasgow considers the following points :—

(a) Is the property worth saving?

(b) If so, are the ground burdens reasonably small, or, if they are heavy, then can they be redeemed?

Where the answers are in the affirmative the conveyance is accepted.

It may be that the property is within an area which is not proposed to be redeveloped for housing purposes yet is worth saving, and the position as regards ground burdens is satisfactory, and, if so, the conveyance is again accepted.

It may be that the property is not worth saving but is within an area to be redeveloped for housing purposes, in which case a conveyance is accepted if the ground burdens are reasonable.

Where the ground burdens are so heavy as to be disproportionate to the value of the ground, then, if they cannot be redeemed at a reasonable price, the offer, no matter what other circumstances are favourable, is not accepted.

In most cases the determining factor is the amount of the ground burdens. Unfortunately in most cases the ground burdens are heavy, and the greatest difficulty is experienced in inducing the parties in right of them, i.e., superiors and creditors in ground annuals, to accept

the low prices at which, as a consequence of the Town and Country Planning (Scotland) Act, 1947, these burdens are valued. The existing use value of the ground is low and normally the personal obligation cannot be enforced.

The following examples are typical :—

- (a) 6/10 Corn Street, comprising 2 tenements with 12 houses and a store, gross rental £175 10s., were offered free of price when the factors had no funds available to carry out repairs. As the ground burdens, amounting to £5 15s., were held by the Corporation, and as the property was within an area proposed for residential development, it was agreed to accept the offer.
- (b) 13 Burndyke Street, consisting of 12 houses with a rental of £133, in an area zoned for residential purposes, were offered free of price. The offer was accepted after the feu-duty of £8 10s. 3d. had been acquired at the price of £45.
- (c) 167/169 Neptune Street, consisting of 16 houses with a rental of £188, were offered subject to feu-duty of £16 11s. 1d. The feu-duty was acquired for £57 10s. and the conveyance of the property accepted.
- (d) 79 Denmark Street, containing 16 houses with a rental of £169 10s., were offered without price. The feu-duty of £1 15s. 4d. was purchased for £26 10s., and the ground annual of £23 19s. 3d. for £119 16s. 3d., and the offer accepted.
- (e) 82/86 Abington Street, comprising 2 four-storey tenements, with 24 houses, gross rental £315 10s., were offered free of price. The ground burdens consisted of feu-duty of £10 6s. and ground annual of £17 14s., and there was a bond secured over the property for £420. The property was in a fair state of repair and was in an area scheduled for residential purposes, and the committee were prepared to accept the offer provided the bond was discharged and the ground burdens could be acquired at a reasonable price. Negotiations have not been concluded.

- (f) 24½/42 Cook Street, comprising 57 houses, were offered free of price but subject to feu-duty of £13 10s. 9d. and ground annuals of £20 17s. 3d. and £151 1s. 1d. As the negotiations for the purchase of the ground burdens were unsuccessful the committee decided not to accept. The owner abandoned the property, and the committee, in order to keep the houses wind and water tight, carried out certain minimum repairs at a cost of £520. No attempt was made to recover any part of this cost from the occupiers.

The Position where the Property has been Abandoned.

19. After the property has been abandoned there are various methods which have been adopted to meet the resulting conditions. These are :—

- (a) Requisitioning by the Secretary of State.
- (b) Ground burdens acquired by local authority and thereafter possession taken.
- (c) Repairs carried out by local authority with approval of Secretary of State.
- (d) Nuisances abated by local authority at their own expense.
- (e) Repair procedure under the Housing (Scotland) Act, 1950.
- (f) Co-operation among the occupiers to meet the cost of repairs.
- (g) The rating authority proceed against the occupiers to recover owners' and occupiers' rates.
- (h) The property is allowed to deteriorate and is ultimately condemned.

Each of these methods involves special consideration.

20. Requisitioning on behalf of the Secretary of State under Defence Regulation 51 was suggested to the Under-Secretary of State, Mr. George Buchanan, in November, 1946, as a method of obtaining possession of and preserving for a temporary period housing accommodation in certain abandoned properties. The suggestion related to properties where the ground burdens were disproportionately heavy, and the Corporation could not adjust terms with the parties in right thereof. The Secretary of State accepted the suggestion in respect of 203 houses in all, but on the express understanding that the properties had been abandoned ; that there was no question of paying compensation ; that the expenditure on repairs would be limited to a specified figure ; and that the Corporation would rehouse the tenants and condemn the houses not later than five years after the requisitioning.

21. In a number of cases the Corporation acquired the right of the superior and of the creditor in the ground annual, and, since the property had been abandoned by the owner, the Corporation simply took possession and carried out the necessary repairs. Section 61 of the Housing (Scotland) Act, 1950, empowers a local authority to provide housing accommodation by repairing or improving any houses which have, or a right or interest in which has, been acquired by the local authority.

22. In two cases the Corporation, with the approval of the Secretary of State under s.339(1) of the Local Government (Scotland) Act, 1947, carried out repairs on abandoned properties in order to remove danger and save the houses. The sums spent were £564 10s. and £1,215.

23. When nuisances develop and are of a nature that they must in the interest of public health be abated, the practice of the Corporation is to remove the nuisance themselves without any formal procedure. This practice is founded on the provisions of s.20(3)(b) of the Public Health (Scotland) Act, 1897. Under s.150 of the Act the local authority can require payment of their expenses from the occupier, but, so far, in Glasgow no attempt has been made to recover the cost. During the year, June, 1949 to May, 1950, the Corporation incurred expenditure amounting to £1,913 7s. 1d. under this heading.

It might be doubted if this summary procedure has legal sanction, but it can scarcely be doubted that formal procedure for the removal of a nuisance in an abandoned property is just not worth while. The formal procedure involves service of the notice addressed to "the owner of the premises" (1947 Act, ss.349 and 161), thereafter a Petition to the Sheriff on which the Sheriff would grant warrant to do the necessary work. In the event of the occupier refusing to contribute to the cost up to the limit of the rent due, the local authority could recover the money by summary petition. As nuisances can usually be abated by carrying out some small repair it is obvious that the formal procedure would cost more than the actual work.

24. It has been suggested that the local authority might use the repair provisions of the Housing Act, 1950, Part II, make and record a Charging Order for their expenses, and thereafter recover from the occupiers by way of an annual charge. These provisions, however, can only be used on the assumption that the houses can be made fit

at a reasonable expense. (1950 Act, s.7.) The procedure is, however, more simple than the formal nuisance procedure, in that no Petition to the Court is required.

25. In a number of instances the occupiers have co-operated in maintaining the property. The method adopted was for the occupiers to contribute a sum each week in lieu of rent, and the party who collected the contributions arranged for the repairs. This co-operative arrangement seldom survives long. Either the occupiers stop paying or the party collecting fails to apply the funds to the purpose for which they were intended.

26. Recovery of Rates, etc.—Section 349(4) of the Local Government (Scotland) Act, 1947, provides :—

“ Where any such notice, order, demand, requisition or other document authorised or required by this Act or any other enactment or any statutory order or byelaw relates to premises and the authority are unable after reasonable inquiry to ascertain the name and address of the owner of the premises, then, if there is no known factor, agent or person drawing the rents, such notice or other document may be addressed to the occupier or any of the occupiers of the premises, and such occupier shall in all respects take burden for the owner, so however that he shall not be liable to make payment under this section of any sum in excess of the sum which he is liable to pay in respect of rent of the premises nor shall he be required to make payment of any sum before the sum in respect of rent is due and payable, and any sum so paid by the occupier shall be deemed to be a payment to account of rent.”

It would appear that little use has been made of this provision although it provides a simple and easy method of dealing with the occupier in the case of property which has been abandoned and of recovering any burden of the owner up to the amount of the rent.

27. The last method of treatment is used where the future “ life ” of the property is “ nil.” It is simply to allow the property to deteriorate until it must be condemned either because it is dangerous or hopelessly unfit for human habitation. The number of houses which have reached this stage in Glasgow is so great that the rehousing of the occupiers presents a serious problem. It is, however, at this stage (which must inexorably be reached in all limited-life subjects) that a

local authority can meantime find some consolation in that there is no opposition to condemnation. Prior to the last war the opposition to condemnation of house property was considerable. Every one of Glasgow's pre-war clearances met with strenuous opposition. Now encouragement to condemn is the order of the day, but, as and when the Corporation desire to condemn and clear buildings in which there are tenants who have bought their houses, it is not unlikely that opposition will again be encountered.

REHOUSING OF TUBERCULOUS FAMILIES.

During 1950, 706 recommendations were made to the City Factor's Department under the Scheme for the Rehousing of Tuberculous Families. Altogether 480 families were rehoused during the year, 236 being families recommended during 1950 and 244 families recommended in previous years. As will be seen, the number recommended still exceeds the number rehoused and there is still some considerable delay in the rehousing of recommended families.

NUMBER OF TUBERCULOUS FAMILIES REHOUSED, 1935-1950.

Year	Families	Year	Families
1935	278	1943	146
1936	182	1944	166
1937	125	1945	124
1938	100	1946	220
1939	82	1947	245
1940	52	1948	326
1941	60	1949	787
1942	69	1950	480

RENT AND MORTGAGE INTEREST RESTRICTIONS ACTS.

Applications during the year for rent restriction certificates under the Rent and Mortgage Interest Restrictions Acts, 1920-1939, amounted to 493, approximately equal to the average for the past six years. The following table shows the number of applications from 1938 to 1950 :—

Year	Applications	Year	Applications
1938	35	1945	437
1939	29	1946	271
1940	3	1947	672
1941	8	1948	323
1942	3	1949	480
1943	51	1950	493
1944	81		

Of the 493 applications, 219 were granted, 248 refused, and 26 cancelled. The majority of the applications refused were on the

grounds that the work of repair had been completed. There were 26 applications by house factors for reports, 24 of which were granted and 2 cancelled. The applications for rent restriction certificates are an indication of the dissatisfaction of tenants with the delay in the execution of repairs.

OVERCROWDING

The rehousing of families overcrowded under the 1935 Housing (Scotland) Act standard has not resulted in the further overcrowding by succeeding tenants. Statistics of decrowding in relation to houses vacated by families removed to new houses is shown in the table as follows :—

Size of House	No. of Houses Inspected	Over-crowding Removed	Over-crowding Reduced	Over-crowding Unchanged	Over-crowding Increased
One apartment ...	7,850	5,928	1,586	207	129
Two apartments ...	19,071	15,282	2,732	489	568
Three apartments ...	5,592	5,026	331	84	151
Four apartments and up	749	662	47	10	30
Total ...	33,262	26,898	4,696	790	878
Percentage ...	...	80.9	14.1	2.4	2.6

Out of 33,262 houses inspected subsequent to the transfer of the occupants to Corporation houses since the passing of the Housing (Scotland) Act, 1935, 19.1 per cent. were found to be again overcrowded compared with 19.7 per cent. in 1949.

UNINHABITABLE HOUSES.

During the year 168 dwellings were represented by the Medical Officer of Health to the Housing Committee as uninhabitable and a Demolition Order was made in respect of 100 and a Closing Order in respect of 68. This latter figure includes one house for which an undertaking was accepted by the Local Authority that it would not be used for human habitation. Alternative accommodation for tenants of unfit or dangerous properties still remains a problem as the majority of the families are able to pay only the lowest rent. It is the lowest rented houses which are also required for the rehousing of the tuberculous families. The possibility of reducing housing costs is at present being investigated but it is unlikely that any material reduction can be made without reducing at the same time living space and standards. The following table shows the total number of houses represented during the past thirty years and the action taken :—

Year	Number of Houses Represented Under Closing and Demolition			Number of these Houses actually Closed in Each Year Closing and Demolition		
	Under Slum Clearance Schemes	Orders	Together	Slum Clearance Schemes	Orders	Together
1917-1937	8,635	8,278	16,913	8,545	7,605	16,150
1938	—	467	467	89	914	1,003
1939	36	275	311	2	347	349
1940	—	157	157	—	213	213
1941	—	52	52	—	74	74
1942	—	4	4	—	13	13
1943	—	46	46	—	47	47
1944	—	19	19	—	19	19
1945	—	13	13	—	12	12
1946	—	26	26	—	26	26
1947	—	274	274	—	127	127
1948	—	45	45	—	155	155
1949	—	105	105	—	136	136
1950	—	168	168	—	115	115
Totals	<u>8,671</u>	<u>9,929</u>	<u>18,600</u>	<u>8,636</u>	<u>9,803</u>	<u>18,439</u>

In the case of one house which was owned by the occupier the Local Authority has granted and renewed a licence under Defence Regulation 68BP authorising the occupancy of the premises by the owner and his family. This licence has been renewed from year to year since the passing of the Defence Regulation. It is the only house of this type in the city.

INSPECTION OF HOUSING SCHEMES.

It is now twenty-five years since the inspection of rehousing schemes by housing nurses was instituted. In 1923 for the first time the demolition of insanitary houses had been definitely associated with the rehousing of the displaced tenants in the new houses at Hamiltonhill, Newbank, Yorkhill and Polmadie. By 1925 dissatisfaction was being expressed with the condition of the new houses—sub-letting, over-crowding, lack of cleanliness and bug infestation. The Medical Officer of Health was asked to review the situation and advise the Housing Committee. He pointed out that the duties of influencing, advising and assisting the tenants would be best carried out by a trained nurse with a knowledge of housekeeping, who would be respected by the tenants and would have free entry. He was also of the opinion that it would be preferable to second for this particular duty one of the

existing experienced members of the Health Department who would remain attached to the Health Department for administrative purposes but whose salary would be met by the City Improvements Department.

The Medical Officer's recommendation was accepted and a health visitor was appointed and since 1925 the housing nurses, as they came to be called, have been a special feature of the Glasgow system of supervision. The duties of the housing nurse were to be additional to and not in substitution for those of the existing caretakers whose functions are of a different character. In practice the housing nurse and the resident factor work in close co-operation.

The problem of bug infestation was tackled by Dr. W. C. Gunn, who made a very careful investigation and recommended the steps to be taken to reduce infestation. In later years when the numbers of housing nurses had increased, a special course was instituted to train them in the detection of the first signs of infestation. Arrangements were made for all unfit dwellings to be visited and inspected for bug infestation before the tenants were transferred to their new accommodation. The work of eradication of the major infestations was carried out by the staff of the Maintenance Section of the City Improvements Department and with the whole-hearted assistance of the housewife infestation was reduced to a minimum. The development of the use of D.D.T. and the institution of the Disinfestation Unit of the Department have permitted a very complete control over bug infestation in old and new houses and out of a total of 14,769 houses, in only one per cent can infestation be regarded as serious.

While encouragement, persuasion and instruction are successful in the majority of cases, there are occasions where in individual houses it is necessary to go further and exercise pressure. The housing nurse is endowed with the powers of a sanitary inspector under the Glasgow Corporation (Police) Order Confirmation Act, 1904, in respect of houses, bedding or furniture found to be in a dirty condition and being an officer of the Medical Officer of Health can utilise the machinery of the Health and Welfare Department.

The promotion of cleanliness and the prevention of bug infestation are not, however, the principal duties of the housing nurses. They are the health visitors of the Department, responsible for the education of the majority of the families lacking in social conscience. While not every tenant transferred from an old house becomes immediately a

good tenant, there is the natural anxiety of the family to turn over a new leaf and the encouragement and sympathetic consideration of the housing nurse and the resident factor assist the majority of tenants to make good. On the other hand families who have lived for years under slum conditions have lost the habit of making prolonged and continued efforts against difficulties. While they also make a determined effort on rehousing, it is difficult for them to maintain enthusiasm and they do slip back from time to time. It is in this particular group that there is the greatest need for the housing nurses and while it is perhaps too much to expect that all families become good tenants, it has been found over the past twenty-five years that frequently the children of these original rehoused families have progressed to the higher category. Of course, there are the other tenants who have made no progress whatsoever. In 1925 they amounted to 10 per cent. and were regarded as dirty and undesirable. Many of them do leave the areas or are evicted for non-payment of rent but even yet there are about one per cent. in the rehousing houses who bring an otherwise satisfactory housing estate into disrepute.

(a) CONDITION AS TO CLEANLINESS.

The numbers of houses in the various rehousing schemes reported on is 14,769

No. of tenants under supervision at 1st January, 1950	...	14,728		
Of which evicted or left owing rent during 1950	21			
Of which left voluntarily during 1950	...	467		
		<hr/>	488	
Of which remaining at 31st December, 1950	...	...	...	14,240
No. of tenants obtaining entry during 1950	...	...	484	
Of which evicted or left owing rent during 1950	13			
Of which left voluntarily during 1950	...	<hr/>	13	
Of which remaining at 31st December, 1950	...	...	...	471
Total number of tenants remaining as at 31st December, 1950	...		<hr/>	<hr/> 14,711

During 1950 the housing nurses made 67,351 primary visits, the condition of the houses being recorded at the time of the visits as "Clean" 41,747, "Fair" 24,122 and "Dirty" 1,482. Further visits numbering 2,435 were made to the less satisfactory tenants.

At the beginning of the year 14,728 households were under supervision and at the end of the year 14,711—a decrease of 17. The number of new tenants was 484. There were 488 removals or 3·3 per cent. of the total occupancies.

The changes in the condition of the 14,240 households under supervision throughout the whole year were as follows :—

Condition at Beginning of Year—	Condition at End of Year.				Group Percentages
	Clean.	Fair.	Dirty.	Total	
Clean	9,256	370	—	9,626	67·6
Fair	589	3,841	55	4,485	31·5
Dirty	2	38	89	129	0·9
Total	9,847	4,249	144	14,240	100·0
Group percentages	59·2	29·8	1·0	100·0	—

A similar table is given for the 471 tenants who obtained entry during the year and who were still resident in the schemes at the close.

Condition at date of Entry—	Condition at End of Year.				Group Percentages
	Clean.	Fair.	Dirty.	Totals.	
Clean	231	20	—	251	53·3
Fair	42	175	1	218	46·3
Dirty	—	—	2	2	0·4
Total	273	195	3	471	100·0
Group Percentages	58·0	41·4	0·6	100·0	—

The condition prior to the removal of the houses occupied by families who were evicted or left owing rent and by tenants removing voluntarily during the year is compared in the following table :—

					Tenants Removing Voluntarily during 1950.	
					No.	Group Percentages.
Clean	...	...	...	11	32·4	355 76·0
Fair	...	...	...	18	52·9	110 23·6
Dirty	...	...	...	5	14·7	2 0·4
Total	...	...	...	34	100·0	467 100·0

Of 14,711 houses occupied at the end of the year, 10,120 were regarded as "Clean," 4,444 as "Fair" and 147 as "Dirty," representing 68·8 per cent., 30·2 per cent. and 1·0 per cent. of the total. The corresponding percentages for occupancies at the end of 1949 were 67·8 per cent., 31·3 per cent. and 0·9 per cent.

(b) BUG INFESTATION.

The total number of houses in which evidence of the presence of bed bugs was found was 174, or 1·18 per cent., as against 1·1 per cent. in 1949. This increase is insignificant. Analysis of this figure shows that only a "trace" of bed bugs was found in 4 houses or 0·03 per cent. as against 0·2 per cent. recorded in 1949. In this group of houses only old hatched eggs or bug casts but no living bugs or eggs were found in the beds or on furniture, pictures or other household belongings. In 36 houses or 0·24 per cent. compared with 0·3 per cent. in 1949, a "medium" degree of infestation was found and by this is meant that living bugs or eggs were found in beds or on furniture, pictures or other household belongings but not in the structure of the building itself. This condition is readily remedied by the tenants by applying the ordinary methods of household cleansing under the direction of the nurse inspectresses. In 134 houses or 0·91 per cent. compared with 0·6 per cent. in 1949, a "serious" degree of infestation was found. In these houses living bugs or eggs, or both, were found in beds, on furniture or on picture rails, skirting or door facings. Prior to 1948 the eradication of bugs in these houses required the co-operation of the tradesmen of the Maintenance Section of the Housing Department whose procedure was to remove the infested woodwork from walls and apply the blow lamp directly or a contact insecticide. Since the establishment of the D.D.T. Disinfestation Unit, it has been found that the proper application of D.D.T. and Gammexane ("B.H.C.") is sufficient in itself to eradicate infestation of the wall structures without having recourse to the removal of woodwork for the purpose of disinfestation. It will be appreciated that this new procedure causes the minimum of upset in the house while achieving the same results. A feature of the work of the housing nurses is the early detection of infestation and this has been very important in that it has prevented the vermin from establishing themselves for any length of time.

The table submitted herewith shows the progress made during the past sixteen years in the prevention of bug infestation which has fallen from 10·7 per cent. in 1934 to 1·18 per cent. in 1950. It should be

noted that serious infestation has fallen during that period from 7·1 per cent. to 0·91 per cent. throughout the rehousing schemes. This progress is further proof that the preventive system which has been practised in Glasgow during the past seventeen years is thoroughly sound, as it depends for its success upon the cleanliness of tenants and the supervision of them by the housing nurses who are specially trained in the work of prevention of infestation by the bed bug.

PROGRESS OF BUG INFESTATION PREVENTION IN REHOUSING SCHEMES.

Year.	Number of Houses Inspected.	Number of Houses in which Bed Bugs were found.				Percentage of Total Number of Houses.			
		Trace.	M.I.	S.I.	Total.	Trace.	M.I.	S.I.	Total
1934	... 8,670	104	210	612	926	1·2	2·4	7·1	10·7
1935	... 10,576	218	368	378	964	2·1	3·5	3·6	9·2
1936	... 12,803	220	296	295	811	1·7	2·3	2·3	6·3
1937	... 13,676	253	165	304	722	1·8	1·2	2·2	5·2
1938	... 14,416	138	69	240	447	0·9	0·5	1·7	3·1
1939	... 14,609	79	62	168	309	0·5	0·4	1·2	2·1
1940	... 14,669	55	75	185	315	0·4	0·5	1·2	2·1
1941	... 14,731	51	65	94	210	0·3	0·4	0·7	1·4
1942	... 14,751	34	61	121	216	0·2	0·4	0·8	1·4
1943	... 14,769	25	51	120	196	0·2	0·3	0·8	1·3
1944	... 14,769	21	26	110	157	0·1	0·2	0·8	1·1
1945	... 14,769	31	21	108	160	0·2	0·1	0·7	1·0
1946	... 14,769	33	23	105	161	0·2	0·2	0·7	1·1
1947	... 14,769	30	21	131	182	0·2	0·1	0·9	1·2
1948	... 14,769	35	28	83	146	0·2	0·2	0·6	1·0
1949	... 14,769	27	41	89	157	0·2	0·3	0·6	1·1
1950	... 14,769	4	36	134	174	0·03	0·24	0·91	1·18

Trace—Trace of Bugs.

M.I.—Medium Infestation.

S.I.—Serious Infestation.

DISINFESTATION UNIT.

The work of the Unit has been maintained at the same high level as in previous years. The actual number of apartments dealt with again shows an increase which would probably have been larger but for the interruption in the work caused by the outbreak of smallpox in the Spring of the year.

Sanitary Division.	No. of Bug Infested Apts. Treated.	No. of Apts. Treated for Tenants being Rehoused.	No. of Cockroach Infested Houses Treated.	Total No. of Apts. Treated.	Total No. of Visits.
Eastern	1,463	306	153	1,922	1,788
Northern	1,448	329	97	1,874	1,515
South-Western ...	554	283	92	929	1,304
South-Eastern ...	493	310	66	869	1,194
Central	460	211	43	714	991
Total	<u>4,418</u>	<u>1,439</u>	<u>451</u>	<u>6,308</u>	<u>6,792</u>

The above table shows the amount of work which has been carried out in each sanitary division of the city. Although a very considerable amount of bed-bug disinfestation has been accomplished during the year there is still evidence of ample infestation and the problem to be tackled remains considerable. There have been very few recurrences in treated houses.

On several occasions help and advice have been sought by private individuals, commercial firms and other local authorities and a recent addition to the work has been the treatment of verminous bedding and clothing before its removal to the disinfecting stations.

Cockroach Infestation.—During the year some business premises and common lodging-houses have been treated for heavy infestations with the greater or lesser cockroach. D.D.T. and Gammexane have proved satisfactory for this purpose and inspection of the premises after a lapse of six months has revealed most satisfactory control of these pests.

Red Ants (Monomorium Pharaonis).—In tenement property and food premises experiments have been carried out with a fair amount of success. The insecticides (D.D.T. and Gammexane) were used in powder form in the hope that the worker ants might carry some back into the nests. Any methods used against these tenacious insects must be carried out with perseverance if success is to be obtained.

Insecticides.—These were used in both dry and liquid form. For occasions when a dry insecticide was required D.D.T. powder 5 per cent. to 10 per cent. or Gammexane Insect Powder (0.5 per cent. Gamma

B.H.C.) were used. In liquid form a 5 per cent. D.D.T. water emulsion made from a 25 per cent. concentrate or Gammexane Emulsion Concentrate M.G. 240—this is a new water emulsion introduced during the year—were found most satisfactory.

Fly Control.—This activity has been continued unabated, the efforts of the Fly Control Unit being redoubled, especially during the summer months and during the poliomyelitis prevalence. Results here are, of course, very difficult to estimate and it must of necessity be continued for a considerable time to make the improvement appreciable. Nevertheless it is felt that the Unit is definitely producing an improvement.

The table below shows the number of ash-pits and manure pits dealt with during the year.

CONTROL OF THE HOUSE FLY.

Gastro-Enteritis, etc., Precautions.

					Ashbin Shelters.	Horse Manure Pits.
First sprays ...	...	...	...	...	2,921	—
Second sprays	...	...	...	...	23,201	245
Third sprays	...	...	...	...	6,179	248
Special Sprays for Poliomyelitis Precautions	...	...	...	...	3,254	45
Total Sprays	...	...	...	...	<u>35,555</u>	<u>538</u>

MATERIAL USED.

D.D.T. Emulsion, 2½ per cent.	...	...	...	6,280	galls.
Whiting	...	...	...	...	51 cwts.

It would seem appropriate to mention at this point the activities of a section of the Department—the Disinfecting Section. This is one of those basic activities without which any Public Health Department could not function but which tends, on account of its routine nature, to be forgotten. Not only does this Section disinfect premises and administer the Fly Control Unit, but it also supplies to members of the public for use in their own homes, whitewash, brushes, etc.

A glance at the table below which shows the amounts of materials used during the year will give a very good guide to the volume of the work.

	Whiting	Colour	Whitewash Brushes Lent on Hire	Exenol Disin- fectant (Crude)	Formal- dehyde 40%	Naphth- alene
	Lbs.	Lbs.		Galls.	Galls.	Lbs.
Materials used by Disinfectors ...	50	15	—	93	132	1,008
Issued to the Public for cleaning Houses, etc. ...	1,879	750	192	22	—	—
	<u>1,929</u>	<u>765</u>	<u>192</u>	<u>115</u>	<u>132</u>	<u>1,008</u>

SECTION IX.

BACTERIOLOGICAL LABORATORY.

The growth of bacteriology in relation to medicine undoubtedly continues; its scope is wide and is becoming wider. At the same time many of its most beneficial applications in the past have been in the fields of Preventive Medicine, Public Health and Hygiene, and must continue to be in the future, for the need is still there. Problems constantly arise in the sphere of operations of the M.O.H. which have health facets where the help of the bacteriologist is invaluable. It would be no exaggeration to say that modern civilised life owes a great deal of its security to this combination, and to the application in the field, of bacteriological and immunological methods in the control of disease. The price of the healthy life is perennial vigilance; even in our scientific age.

The nature of the work of the laboratory has been as varied as ever during the year and relates chiefly to the needs of preventive medicine and the control of infectious disease, including the epidemiological requirements. There is also the constant watch kept upon the food, water and milk supplies of the city, for the M.O.H. must be satisfied that these are free from the risk of spreading disease. The needs of the Port, a possible entry for disease, are also satisfied from these points of view.

The total number of examinations made in the laboratory in 1950 was 101,036, which is 13,022 more than last year, and well exceeds the previous record of 95,851, reached in 1948. Such figures reflect the continued intimacy between bacteriology and medicine.

There was actually a welcome decrease in the number of specimens from diphtheria suspects, and in the number of examinations made in connection with venereal disease, but these decreases were more than offset by the increase in relation to the prevalence of dysentery; and in addition, the work done by arrangement for Stirlingshire and Clackmannanshire helped to swell the total.

The number of examinations made in the laboratory in 1950 was the largest of any year in its history. The table at the end of the following summary details their nature and distribution.

INFECTIOUS DISEASES—EPIDEMIOLOGICAL INVESTIGATIONS.

Diphtheria.—The number of swabs examined during the year for the presence of the diphtheria bacillus was 5,868 which represents a decline of 1,450 on last year's total and is little more than half the number examined in 1948. The descending order of these figures runs parallel with the progressively diminishing incidence of diphtheria among the population. This is due to the beneficial effects of widespread efficient prophylactic inoculation (immunisation) in raising to a high level, by artificial reinforcement, such immunity as already existed in the community, largely because of the prevalence of the disease in past years. Of the number of swabs received, 5,175 were from suspected cases and 693 were examined for control purposes.

The number of positive specimens from new cases at 118 contrasts with 220 in 1949, a drop of about 47 per cent. Typing of all strains of *C. diphtheriae* isolated (231) was continued, and virulence and toxigenicity tests carried out as required. All were examined for toxin production and many by the biological test. Of the 118 from new cases, 40 were classed as *gravis*, 12 as *intermedius*, 32 as *mitis* and 34 as atypical. The following table gives the numbers and relative incidence of the types of the diphtheria bacillus isolated in the laboratory during the last six years.

Year		Total	Gravis		Intermedius		Mitis		Atypical	
		No. of Strains	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
1945	...	1,351	666	49.3	436	32.2	181	13.4	68	5.1
1946	...	973	447	45.9	214	22.0	194	19.9	118	12.0
1947	...	389	136	35.0	59	15.1	119	30.6	75	19.3
1948	...	397	122	30.7	54	13.6	142	35.7	79	19.8
1949	...	220	46	20.9	41	18.6	86	39.1	47	21.4
1950	...	118	40	33.9	12	10.2	32	27.1	34	28.8

It will be noticed that although there has been a progressive decline in the number of strains of *C. diphtheriae* isolated, the proportion of the more dangerous types, *gravis* and *intermedius*, was slightly higher in 1950, forming 44.1 per cent. as against 39.5 per cent. in 1949. Of the *mitis* and atypical strains, 54 were non-virulent and non-toxigenic

which leaves only 64 virulent strains in all, exactly half of the number in 1949. However, of these 64 strains 62·5 per cent. proved to be of the *gravis* type and were all toxigenic, so that despite the decrease of diphtheria in the community, and the fact that no deaths occurred in 1950 from this disease, the type of diphtheria bacillus which world-wide records show to be of paramount importance in epidemic diphtheria because of its potentially high virulence, still lurks in considerable proportion, which is a strong argument for maintaining in full vigour the immunisation service, that has already done so much to reduce the morbidity and mortality of diphtheria.

Streptococcal infections.—Haemolytic streptococci are specially found in spreading inflammation, with or without suppuration. The main source of infection by these organisms is the upper respiratory tract. They are implicated in scarlet fever, erysipelas, puerperal sepsis, acute infections of the throat and other disorders. In connection with such diseases it is necessary, apart from the routine detection of streptococci, to determine their dissemination, particularly among persons attendant on patients, i.e. nurses, midwives and others, as well as among lay contacts, who are liable to harbour them in throat and nose and so be sources of infection.

For these purposes, 661 swabs from the throat or nose were examined in 1950 and haemolytic streptococci found 278 times.

Much other material from various lesions was also examined for streptococci, including non-haemolytic varieties which, though generally of lower virulence, are often associated with disease.

Enteric Fever.—Material from 580 suspects yielded typhoid or paratyphoid bacilli 17 times, but from 767 specimens from contacts or for purposes of control these organisms were isolated in 89 instances. The total number of specimens examined was more than 400 higher than last year, but there was little typhoid fever in the city according to the findings of this laboratory. Paratyphoid infections were also not remarkable in number. *B. typhosus* was isolated on 23 occasions from 5 cases but only three of these were new during the year. *B. paratyphosus* *B.* was isolated 83 times from 14 patients. It is of interest to note that in one family of 4 infected with *B. paratyphosus* *B.*, their dog, a Cairn terrier, was also found to be infected. The organism was isolated from the dog during life and also from its intestinal contents after death. It is not yet certainly determined whether the dog

infected the family, or whether one member of the family was a carrier and infected the others, including the dog. Although it is on record that *B. paratyphosus* B. has been isolated from a cat, there seems to be no authentic record of its having been isolated before from a dog.

From workmen employed around waterworks 183 specimens of excreta were routinely examined to eliminate possible infection by enteric organisms, whereby the water supply might be accidentally polluted. All examinations gave negative results. Blood from many of these people was also examined, but no indication of infection or of carrier state was found.

Dysentery (bacillary).—A review of bacillary dysentery in Glasgow over the past thirteen years, comprising over 7,000 cases, all confirmed in the laboratory, shows that the lowest incidence is in the first quarter of the year. The year 1950 was no exception but thereafter the monthly numbers rose so that the year's total of isolations of dysentery bacilli from new cases reached 1,970, more than twice the total for 1949, and easily the largest annual number ever recorded in the laboratory. Altogether 15,077 specimens were examined from suspects or for purposes of control. The total number of positive findings was 3,185. There was an increase of over 6,000 in the number of specimens sent for investigation. The highest incidence of new cases was in June; the lowest in February. The large increase has been entirely due to the Sonne type of dysentery; the incidence of Flexner dysentery was less than one third of what it was in the previous year.

The mildness of the disease and the occurrence of many sub-clinical infections make control difficult, and as the incidence falls chiefly on the young, the disorder can be especially troublesome in small juvenile communities, especially those of young children.

The rise in the number of registrations of dysentery during the past year has not been confined to Glasgow but has occurred over the rest of Scotland and in England.

B. dysenteriae (Sonne) was recovered from 1,865 patients against 501 in 1949; *B. dysenteriae* (Flexner) from 105 patients against 373. These two were the only types of dysentery bacilli isolated. In view of the large increase in Sonne dysentery, more than a thousand consecutive strains were further examined to see whether they were alike according to recorded classifications. No aberrant or unusual strains were found. They all appeared to be of the same type.

Antigenic analysis of almost half of the Flexner strains isolated has shown that they are of different types but they fall into classes in approximately the same proportions as they did in 1936 when an earlier investigation was made.

The following table showing laboratory isolations since 1940 has been brought up to date and shows the fluctuation in numbers and types over the years.

Year.	Sonne.	Flexner.	Newcastle.	Shiga.	Schmitz.	Total.
1940 ...	72	107	—	—	—	179
1941 ...	54	57	1	—	—	112
1942 ...	72	61	1	—	—	134
1943 ...	182	70	2	2	—	256
1944 ...	498	273	75	2	1	849
1945 ...	473	139	247	1	—	860
1946 ...	111	109	49	—	—	269
1947 ...	66	18	21	—	—	105
1948 ...	434	383	3	—	—	820
1949 ...	501	373	1	—	1	876
1950 ...	1,865	105	—	—	—	1,970

Dysentery registrations in Glasgow between 1919 and 1934 averaged 56.3 annually and for the next few years this number was almost quadrupled. What has happened since can be judged from the above table, bearing in mind that the totals there are only those of cases proved by the laboratory and fall short of the totals of actual registrations.

It has been possible to work out the age incidence of the patients from whom specimens have been received over the last seven years (1944-1950). The result shows that 59.4 per cent. came from children under 5 years of age, and 79.3 per cent. of the whole from persons under 15 years. The 0-5 age group sustains the weight of the attack.

Dysentery (amoebic).—One hundred and six specimens, many from ex-service men, were examined for *Entamoeba histolytica*, all with negative results. Cysts of non-pathogenic amoebae were sometimes seen.

Food Poisoning and Foodstuffs.—Cases of illness thought to be attributable to food poisoning, which have been reported more frequently in late years, maintained their numbers in 1950. More specimens for examination were in fact received than in the previous year. The

micro-organisms which are usually responsible for these gastro-intestinal upsets are various bacilli of the *Salmonella* group and certain strains of *Staphylococcus aureus*.

Fourteen samples of food which might have been associated with illness were examined. *Salmonella* bacilli were never found in any of these, but *Staphylococcus aureus* was isolated from one sample of meat. In addition 1,351 specimens from patients were investigated. This figure, which is half as big again as that for 1949, includes all repeat specimens examined for purposes of control. Most of the primary specimens were from isolated cases of illness or from small sporadic outbreaks.

One hundred cases of illness proved due to *Salmonella* infection and *Salmonella* bacilli of food-poisoning types were isolated from the excreta of these patients as follows: *Salm. typhi-murium* 209 times from 80 persons; *Salm. thomson* 12 times from 5; *Salm. enteritidis* 16 times from 12; *Salm. newington* twice from one person; *Salm. san diego* once from one person and *Salm. senftenburg* once from one.

Besides the foodstuffs alluded to above which might have been connected with illness, 59 samples of various foods including tinned meats, dried eggs, sardines, artificial creams, cream fillings, sweet-meats, etc., were tested for bacterial contamination with reference to their fitness for human consumption. No frankly pathogenic organisms were found and none of these specimens was grossly contaminated.

Apart from this work for the City of Glasgow, some specimens connected with suspected food poisoning were examined for outside authorities. From one such specimen, a cooked tongue, which was alleged to have caused transient illness in several persons, *Staphylococcus aureus* was isolated. A strain of this coccus was also isolated from the nose of a person who had prepared the tongue. It was determined that both these strains of *Staph. aureus* were of a type known to be capable of producing a toxin which can give rise to the symptoms associated with food poisoning.

Shellfish.—The shellfish examined this year, one sample of whelks and four samples of mussels (3 uncooked and one cooked) were investigated because of complaints of transient illness which might have followed their consumption. From these batches of molluscs 32 individuals were examined. No pathogenic microbes were isolated nor was any evidence of gross pollution obtained.

Anthrax.—Anthrax bacilli were cultivated from a lesion on a patient's neck and in connection with this, floor sweepings and hides from a tannery were examined. Anthrax bacilli were recovered from a sample of hide and from the floor sweepings.

Venereal Diseases.—There was a further fall in examinations classified under this heading in 1950. The figure was 35,926, a decrease of 3,255 on the total for 1949. There was a 10 per cent. fall in 1949 and the present decrease represents 8 per cent. on last year's total.

The tests for syphilitic infection numbered 32,864 and for gonococcal infections 3,062. The Wassermann test was carried out 7,409 times for diagnostic purposes, 6,497 times for the estimation of progress in cases under treatment, and 592 times on miscellaneous cases and to check doubtful results obtained in screening and other tests.

The total figure includes also examinations by the Kahn Test, used as a complement to the Wassermann test, and examinations by the Laughlen test which is used as a screening test chiefly in routine ante-natal investigations.

In addition to this work for the City of Glasgow, 990 examinations were performed for outside authorities. Of these, 771 were for syphilitic infection and 199 for gonococcal infection.

Culture to determine the presence of the gonococcus was carried out on swabs from suspected persons sent to the laboratory by the vehicle of the special transport medium elaborated a few years ago. Swabs embedded in this medium are maintained under conditions which will ensure the survival of the gonococcus (and other delicate organisms) for many hours. From 719 patients, 2,197 swabs were examined. They came chiefly from the City V.D. clinics for females. Roughly three-quarters of these were for diagnostic purposes and the remainder to determine the progress under treatment and to test for cure. Positive cultures numbered 255 (from 150 persons) against 183 last year. Ninety-eight of these confirmed the microscopical findings in clinic smears, and from 157 specimens the gonococcus was grown when the clinic smear had been regarded as negative. In 40 instances the gonococcus was not grown, when the clinic had, at some time or other, recorded positive findings in smears. Thus, examinations by smears and cultures are complementary and the use of both ensures greater ultimate accuracy.

Trichomoniasis.—All the above specimens (2,197) were examined for *Trichomonas vaginalis*, which was found in 519 or 23·6 per cent.

Ophthalmia neonatorum.—This year 464 specimens (representing 249 babies) were examined from infected eyes, 14 by cultural methods. Only 3 of these babies proved to have gonococcal ophthalmia. From them, four cultures and eleven smears were positive.

PUBLIC HEALTH—GENERAL CONTROL.

Antenatal—Rh. Tests.—This service, run by the laboratory with the co-operation of the Maternity and Child Welfare Department and the Regional Blood Transfusion Organisation, had completed by the end of 1950 the screening of 51,052 specimens of blood for the determination of the Rh. factor. Of these, 11,209 were examined in 1950 when 33 women were found to have become sensitised to the Rh. factor. The total of Rh. negative women discovered among the population from the initiation of the service in 1946 to the end of the year, was 8,235, representing a percentage of 16·1 of those whose blood was examined. The number of Rh. negative bloods found in 1950 was 1,997. Most of the specimens sent to the laboratory come from Antenatal clinics. There was, however, an increase in the number of general practitioners using the facilities provided. They sent in 420 requests for testing in 1950—an increase of 147 on the previous year. All women whose blood is found to be Rh. negative, have the result checked at the Blood Transfusion centre where the fullest facilities exist for extended inquiry.

Tuberculosis.—The number of specimens of sputum examined microscopically numbered 7,484, an increase of 94 on 1949. In 1,319 of these *M. tuberculosis* was found.

A few specimens of sputum and much other material—urine, cerebro-spinal fluid, pleural fluid, gastric washings, etc., were investigated by the biological test as well as by microscopic examination. Altogether 349 samples of morbid material other than sputum were so examined for tuberculous infection. A small number of specimens were examined by cultural methods.

Milk Supply. Tuberculosis.—The total number of samples of milk tested biologically for tubercle bacilli during 1950 was 708 against 604 in the previous year. Tubercle bacilli were detected in the City

Milk supply in 0.9 per cent. of 333 undesignated samples, this percentage being the same as last year. None were found in 108 samples of designated milk which were examined. In addition 88 samples of the milk supplied to schools and 53 samples of hospital milk were all found to be free from infection with *M. tuberculosis*.

From other local authorities, 126 samples of milk were received for biological test. One of these yielded a positive result.

Milk Supply. Bacterial Content.—The milk supplies of the city, including school and hospital supplies, were constantly under routine examination as usual during the year; plate counts for bacterial content and coliform tests being used according to regulation. The results show that there was a slight overall improvement in the quality of the samples submitted, which numbered 2,122 against 2,156 in 1949. Of 1,579 samples of designated milk tested, 1,411 (89.4 per cent.) complied with the prescribed standards, which is 2.4 per cent. more than in the previous year. The following table gives more particulars of the results of examinations.

	Number of Samples.	No. Complying with standards.	Per cent Complying.
<i>Hospital Supplies—</i>			
Raw (Certified ; T.T. ; Standard.)	211	170	80.6
Pasteurised and Heat Treated	84	81	96.4
<i>Public Supplies—</i>			
Raw (Certified ; T.T. ; Standard.)	467	390	83.5
T.T. (Past.) ; Pasteurised ; and Heat Treated	649	613	94.5
<i>School Supplies—</i>			
Pasteurised	168	157	93.5

As well as the above, 518 samples of raw milk were taken prior to sale or to processing. Of these, 475 (91.7 per cent.) were found to be bacteriologically of satisfactory quality.

There were also 25 miscellaneous samples of milk examined, 22 (88 per cent.) of which complied with the appropriate standard.

Milk Bottles.—Milk bottles are regularly examined to control the efficiency of the various cleansing processes employed. This year 239 were examined, of which 173 (72·4 per cent.) were regarded as being satisfactory according to laboratory standards.

Ice Cream.—There was an improvement registered in the quality of the ice-cream by the results of bacteriological examination of 332 samples. Results were as set out in the table, the findings for 1949, when almost the same number of samples was examined, being attached for comparison.

Bacterial count per ml.					No. of Samples.	Percentage 1950	Percentage. 1949
0—	30,000	...	...	...	260	78·3	66·3
30,000—	100,000	...	...	...	35	10·5	11·3
100,000—	200,000	...	...	...	10	3·0	3·3
200,000—	1,000,000	...	...	...	13	3·9	9·0
Over a million		...	...	...	14	4·2	10·1

These figures show that 78·3 per cent. of samples conform to the high standard laid down for certified milk ; and 91·8 per cent. may be regarded as satisfactory.

Coliform organisms were found to be present in 1/100 ml. in 45 (13·6 per cent.) of samples, which is a better finding than last year's, by 3 per cent.

City Water Supply.—Samples to the number of 1,004, from reservoirs, mains and other sources were brought to the laboratory in 1950. This is an increase of 398 over 1949, chiefly due to the control necessarily exercised during the laying of the new East main.

The following table shows the average bacterial counts obtained from the samples of the water supply to the mains during the year.

Supply.					No. of Samples.	Average bacterial count per ml. at 37°C	Average bacterial count per ml. at 22°C.
Loch Katrine	...	...	...	...	171	1	20
Gorbals	...	...	...	...	48	14	35

Typical *B. coli* were not found in 100 ml. of any of the Loch Katrine specimens. From the Gorbals supply *B. coli* was obtained infrequently and never in quantities of less than 50 ml.

The high standard of purity of the water was maintained.

Public Baths Water.—The swimming ponds provided 337 samples of water for examination in 1950. Seventy-three of these were special samples designed to test experimentally the efficiency of the break-point chlorination method; the remainder, 265, were routinely examined to provide information on the effects of filtration and chemical treatment on the bacterial content of bath waters, for purposes of control. Results were generally satisfactory.

Anthrax.—In addition to material recorded under this heading in the section Infectious Diseases, 5 samples of cow hair and goatskins entering the port were examined culturally and biologically for the Anthrax bacillus for purposes of control. No evidence of the presence of *B. anthracis* was found.

Plague.—This disease can be acquired from the bite of a rat flea which has previously fed on a plague-infected rat, and so laboratory examinations for evidence of plague-infection of various species of rats, *Rattus rattus*, *Rattus norvegicus*, from ships entering the port and from the harbour, are constantly carried on. No plague-infected rats have been discovered since 1902. In 1950 the laboratory examined 405 rats, all with negative results.

Yellow Fever.—Since 1947, at first on behalf of the Department of Health and later for the Western Regional Board, the laboratory has stored Yellow Fever Vaccine for the prophylactic inoculation of those about to travel abroad in certain areas where they might be exposed to the chance of infection. For this purpose 2,290 doses were issued in 1950.

Insect Pests.—A few specimens of insects, mostly domestic pests, exclusive of vermin, continue to reach the laboratory for identification. The furniture beetle (*Anobium punctatum*), the minute false scorpion (*Chelifer cancroides*), and the golden spider beetle (*Niptus hololeucus*) were among those seen this year. None of these is harmful to health but the beetles can on occasion become a nuisance by their depredations.

ORIGINAL INVESTIGATIONS.

Cryptococcus.—*Cryptococcus neoformans*, a yeast-like organism which can cause various manifestations of disease in man, was discovered in a sample of mixed milk. As far as could be ascertained from the literature, this is the first time since 1901 that this organism has been noted in milk. A short description of the finding, with the results of experimental work, was published during the year.

Dental Caries.—Collaboration with the Chief Dental Officer in his investigation of dental caries was continued on the bacteriological side, and 110 samples of saliva were examined.

General.—In connection with dysentery, paratyphoid infection and food poisoning, investigations have been carried on so far as the demands of routine work have permitted.

HARTLEY S. CARTER,
Bacteriologist.

PUBLICATIONS.

- Note on the isolation of *Cryptococcus neoformans* from a sample of milk. H. S. Carter and Jean L. Young (1950). J. Path. Bact., LXII. 271.
- Sir Thomas Browne and his Books. H. S. Carter (1950). Glas. Med. J., XXXI. 19.

TOTAL OF EXAMINATIONS FOR YEAR 1950.

CITY OF GLASGOW. INFECTIOUS DISEASES.

Diphtheria and General Throat Infections—

					<i>Positive.</i>	<i>Total.</i>
Diphtheria...	...	Suspects ...	...	...	107	5,175
		Control, etc.	...	...	118	693
		Typing	...	...	—	231
		Virulence tests	...	...	—	67
		Toxigenicity tests	...	...	—	124
Streptococcal						
Infections	...	Suspects ...	...	...	278	661
Vincent's Infections		Suspects ...	...	...	21	226
Penicillin Sensitivity tests	...	...	...	...	—	26

Gastro-Intestinal Infections—

Enteric Fever	...	Suspects ...	...	...	17	580
		Control, etc.	...	...	89	767
		Water Works employees	...	...	—	183
Food Poisoning	...	Foodstuffs	...	...	—	14
		Specimens from patients	...	...	241	1,351
		Shellfish	...	...	—	32
Dysentery—						
Bacillary	...	Suspects ...	...	...	1,970	6,688
		Control, etc.	...	...	1,215	8,389
		Biochemical investigations (extra)	...	...	—	1,009
		Antigenic analysis	...	...	—	46
Amoebic	...	...	...	...	—	106
Other Forms	...	Giardia, etc.	...	...	—	17

Tuberculosis—

Sputa	...	...	...	1,319	7,484
„ (Pottenger's technique)	...	...	...	—	280
Various Specimens— (micros. exams.)	...	...	...	—	279
Various Specimens— (biological exams.)	...	...	...	—	256

Venereal Diseases—

Wasserman Test	...	...	...	14,498
Precipitation Test	...	...	...	13,704
Kahn Test	...	...	...	4,662
Colloidal Gold Test	...	...	...	333
Protein Test	...	...	...	250
Gonococcal smears, cultures and complement fixation tests	...	...	...	3,062
Ophthalmia neonatorum (smears and cultures)	...	...	...	464

OTHER EXAMINATIONS—

Blood: Rh factor	...	...	...	...	11,209
„ (various infections)	...	...	...	...	53
Body fluids (urine, etc.)	...	...	...	...	309
Exudates	...	...	...	...	37
Faeces for worms	...	...	...	...	16
Faeces for occult blood	...	...	...	...	9
Swabs for Trichomonas	...	...	...	...	2,197
Swabs, etc., for Anthrax infection	...	...	...	...	8
Worms (identification)	...	...	...	...	4
Insects (identification)	...	...	...	...	6
Miscellaneous	...	...	...	...	4

Carry forward 85,509

TOTAL OF EXAMINATIONS FOR YEAR 1950—*Continued.*

<i>Brought forward</i>	85,509
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CITY OF GLASGOW. GENERAL PUBLIC HEALTH.

City Milk Supplies	2,356
Hospital Milk Supplies	348
Milk (additional tests)	...	...	...	...	...	73
Ice-cream	...	...	...	...	...	332
Milk Bottles	...	...	...	...	...	239
Water supplies—routine	...	...	...	...	...	1,004
Water from Baths Department	...	...	...	...	...	337
Foodstuffs—fitness for consumption	...	...	...	...	...	55

PORT HEALTH AUTHORITY—

Gastro-intestinal infections	...	...	...	...	...	22
Diphtheria	...	...	...	...	...	16
Anthrax (cow hair and goatskins)	...	...	...	...	...	5
Plague (examination of rats)	...	...	...	...	...	405
Foodstuffs—fitness for consumption	...	...	...	...	...	4
Miscellaneous	...	...	...	...	...	3

EDUCATION HEALTH SERVICE—

Dental caries investigation—examination of saliva	...	...	...	110
				<hr/> 90,818

OUTSIDE AUTHORITIES—

STIRLINGSHIRE

Tuberculosis (sputum, etc.)	...	...	...	1,784
Tuberculosis (milk—biological exam.)	...	...	...	45
Gastro-intestinal infections	...	...	...	5,025
Throat infections	...	...	...	804
Venereal diseases	...	...	...	989
Various other infections	...	...	...	422
Other biological examinations	...	...	...	110
Penicillin sensitivity tests	...	...	...	23
				<hr/> 9,202

CLACKMANNANSHIRE—

Tuberculosis (sputum, etc.)	...	...	...	524
Gastro-intestinal infections	...	...	...	314
Throat infections	...	...	...	27
Venereal Diseases	...	...	...	21
Various other infections	...	...	...	32
Biological examinations	...	...	...	23
				<hr/> 941

CLYDEBANK—

Tuberculosis (milk—biological exam.)	...	...	...	75
				<hr/> 75
				<hr/> 101,036

CONTROL=specimens from hospital cases, contacts, etc.

SECTION X.

FOOD POISONING.

During 1950, there were 39 notified outbreaks of acute illness thought to be due to the consumption of food. The cases numbered 176, and one death occurred. The corresponding figures for 1949 were 44 outbreaks and 258 patients with 3 deaths. A prominent feature was the high proportion of outbreaks due to specific (*Salmonella*) organisms; this type accounted for 33 of the 39 outbreaks (84·6 per cent.) compared with 26 out of 44 (59 per cent.) in 1949. Three outbreaks involved 4 holidaymakers who probably imported the infection, but of 4 cases in another outbreak, two who resided in a county area were certainly infected in Glasgow.

The numbers affected in each outbreak were distributed as follows :—

1 patient—20 outbreaks.	10 patients—1 outbreak.
2 patients—8 „	12 „ —1 „
3 „ —2 „	13 „ —1 „
4 „ —3 „	28 „ —1 „
6 „ —1 outbreak.	53 „ —1 „

In 51 per cent. of the outbreaks, therefore, the incident was limited to one patient, compared with 43 per cent. in 1949.

Seasonal Distribution.—One outbreak each occurred in January and April, 3 each in March, May and September, 4 in December, 6 in June, 7 in August and 11 in July. This tendency to concentrate on certain months of the year is in contrast to the more even spread over the year in 1949.

Types.—The features of the two main types of outbreak, specific and non-specific were as follows :—

1. *Specific Group.*—In 33 outbreaks, comprising 79 patients, the illness was associated with a *Salmonella* organism. *S. typhi-murium* was isolated from patients in 27 outbreaks, *S. thompsoni* in three, *S. enteritidis* in two, and *S. newington* in one.

As usual, no large explosive outbreak has to be recorded in this group. Of the 33 outbreaks, 18 were limited to a single case, and 8 to 2 cases; in the remaining 7, the distribution of cases was 3, 3, 4, 4, 6, 12 and 13 respectively. In the largest outbreaks, the 12 patients were members of three families infected by case-to-case spread, and the 13 were similarly infected while under treatment in one ward of a general hospital.

2. Non-Specific Group.—In 6 outbreaks comprising 97 patients, no specific organism was isolated and the illness appeared to be toxic in type. This group included the largest outbreak of 53 cases. The distribution of patients in the 6 outbreaks was 1, 1, 4, 10, 28 and 53 respectively.

Vehicle.—In most instances, the vehicle of infection was undetected, and as before, this circumstance is almost wholly applicable to the specific group of outbreaks.

1. Specific Group.—It was found impossible to incriminate any foodstuff in 27 of the 33 outbreaks due to *Salmonella* organisms. In 4 more, it could be said only that the probable medium was eggs (3 duck, 1 hen), while in the remaining outbreak it seemed definite, although unproven, that the infection was conveyed by steak pie which had been only half-cooked before consumption. No suspected foodstuff was obtainable for examination in any instance. The difficulty in this respect is caused by the lapse of time before the diagnosis is established and often thereafter the delay in notification. In a number of outbreaks, also, it is apparent that infection may occur by spread from case to case through media other than food.

2. Non-Specific Group.—In the 6 outbreaks due to ingestion of a toxin, the vehicle could be identified with almost complete certainty, and in every case it proved to be of animal origin, as follows:—Tongue (2), steak pie (1), veal (1), tinned pork meat (1) and mussels (1). A sample of pork meat was obtained but no suggestive organisms were isolated on examination. The associated outbreak was the only example of illness attributable to a canned food product. In the remaining outbreaks, apart from that caused by mussels which is described separately, no samples of food could be obtained for examination.

Selected Outbreaks.—The following are short descriptions of the principal outbreaks in the two groups.

1. *Specific Group.*—The main general feature of this group was, as before, the limited nature of the outbreaks. Thus, of the 33 outbreaks, one person was affected in 18, and 2 persons in 8, i.e., almost 79 per cent. of the outbreaks were limited to 1 or 2 cases. Another feature was the number of young children affected; of the 79 patients, 17 (or 21·5 per cent.) were aged 5 years and under, the youngest being 12 weeks.

The largest outbreak of 13 cases occurred in April among the patients of a male surgical ward in a general hospital. The patients affected sickened over a period of 11 days, and *S. typhi-murium* was isolated from the faeces in all cases. One patient, aged 52 years, died five days after an abdominal operation and *S. typhi-murium* was recovered from the bowel contents at autopsy. In this outbreak the infection was undoubtedly acquired by case-to-case spread and was almost certainly introduced by a patient who had been discharged home. This man was traced and found to be a symptomless carrier. It is very probable that food played no part whatever in the incident.

An outbreak of 12 cases occurred in June and July and involved three families in the Central Division. The first case may well have been food-infected but the organism, which proved to be *S. enteritidis*, was then transmitted by case-to-case spread to other members of the families who sickened at intervals over a period of 3 weeks. The illness was fairly severe, and two patients were admitted to hospital. The three families totalled 16 persons.

Another outbreak in December affected 6 out of 8 persons in one family in the Eastern Division. *S. thompsoni* was recovered from the faeces of the last person to sicken; by this time, the remaining 5 patients had recovered and their stools proved to be negative. The illness was clinically mild. The vehicle was not discovered.

In September, 4 persons who shared the same lunch in a house in the Central Division all sickened about 12 hours later, two of them meantime having returned to their own home in a county area. *S. typhi-murium* was isolated from the faeces of all 4 patients. The illness was of 10 days' duration in one case. The vehicle was almost

certainly cream made from the whites of hen eggs and added to the trifles prepared for dessert. No samples of any kind could be obtained for examination.

2. *Non-Specific Group*.—The largest outbreak in this group occurred in December and affected 53 out of 66 persons who attended a function at a city restaurant in the Central Division. The symptoms, the onset of which varied from 3 to 18 hours after the dinner, consisted mainly of abdominal pain followed by diarrhoea with nausea in a few cases but no vomiting. No pathogenic organisms were recovered from the faeces of those examined. All patients had eaten steak-pie prepared on the previous day, but none of this was available for examination.

The single outbreak due to a canned product already mentioned affected 4 of a family of 9 in the Eastern Division in December. The 4 patients, who had all eaten small quantities of tinned pork meat which was being used to make sandwiches, sickened 5 to 9 hours later with vomiting, abdominal pain, diarrhoea, headache and, in two cases, vertigo. The illness, though sharp, was transient. Portions of the meat along with the tin were recovered but no pathogenic organisms of any kind were isolated either from these or from the faeces of the four patients.

OUTBREAK OF MUSSEL POISONING.

During the six weeks, 29th July to 10th September, a known total of 28 persons in the Eastern, South-Eastern and Central Divisions suffered a gastro-intestinal illness of acute onset associated in every case with the consumption of mussels. Three patients, all children, were removed to hospital. The symptoms were mostly nausea and violent vomiting followed after a varying interval by severe abdominal pain and diarrhoea without blood or mucus. The latent period was 1 to 30 hours and the duration of symptoms 1 to 4 days. The onset of illness took place at week-ends and the distribution of cases over the seven week-ends of the period was, respectively, 11, 6, 0, 2, 8, 0 and 1.

On investigation, it was found that the suspected mussels were bought in all cases at a restaurant in the Eastern Division which was open only on Saturdays and Sundays and which specialised in the sale of shell-fish, both cooked and uncooked. The premises were clean and well managed. The supply of mussels was obtained from the shore adjoining two seaside towns some miles apart in the area of a neigh-

bouring local authority, and it was found that both of these sources, but especially the principal one, were liable to be contaminated by sewage. The proprietor, however, said that he had experienced no previous trouble due to illness among his customers. Shortly before the first cases occurred, he had changed his existing galvanised boilers to new models of zinc and aluminium. After analysis of samples of shell-fish had shown the presence of appreciable quantities of both metals, the original galvanised boilers were restored to use. During the week-end following this change, no illness among customers was reported, but during the next two week-ends further cases occurred.

Meantime, the results of bacteriological examinations showed a heavy bacterial contamination of certain mussels from the main source of supply, and the sale of shell-fish from this area was stopped. Thereafter, only a single case of suggestive illness occurred among consumers.

There seems to be no doubt that the outbreak described resulted from eating contaminated shell-fish. No similar incident has occurred for a considerable time, however, and in view of the fact that the same gathering-sites had been used for many years, it is not obvious why the outbreak should have taken place when it did.

SUMMARY OF OPERATIONS UNDER THE FOOD AND DRUGS (ADULTERATION) ACT, 1928; THE MILK AND DAIRIES ACTS; AND ALLIED ACTS, ORDERS AND REGULATIONS FOR THE YEAR ENDED 31st DECEMBER, 1950.

The Food and Drugs (Adulteration) Act, 1928.—The year has brought no alteration in this Act, but, as a result of the reports of the two Working Parties appointed by the Minister of Food to enquire into the working of the Catering Trades and the Manufacture of Meat and Meat Food Products, there will, it is anticipated, be alterations in certain sections of the Act. These amendments should give Local Authorities power to require registration of premises in certain cases. Legislation for a greater measure of control of these trades, is from a Public Health aspect, very desirable and the requirements now about to be fulfilled are long overdue. It is to be hoped that the Food Standards Committee will fix additional standards for many more foods and thereby bring this country more into line with modern

thought. The placing on the Statute book of the Labelling of Food Order, 1950, should give the purchaser a greater protection against possible misleading or ambiguous descriptions of pre-packed foods. It operates from 1st November, 1950.

It will be observed from the list at the end of this section of the report that a large variety of foods and drugs were taken for examination by the Public Analyst. Of these 152 listed varieties, the samples taken have been dealt with in the following manner :—

The Public Analyst examined a total of 5,734 samples, of which number 1,328 were formal and 4,406 informal. Thirty-seven (2·79 per cent.) of the former and 72 (1·63 per cent.) of the latter were reported as adulterated. The previous year showed 27 (2·04 per cent.) of formal and 72 (1·65 per cent.) informal samples to be not genuine. Proceedings were taken against 22 respondents and 21 convictions obtained. Penalties imposed amounted to £50. One of the respondents was convicted of a second offence and one of a third offence. At the close of the year one case before the Sheriff Court, relating to a sample of Fish Cakes found on analysis to be 71 per cent. or thereby deficient in fish, remained to be decided. This year again there was no infringement of the law in regard to the sale of margarine.

ABSTRACT OF TOTAL SAMPLES EXAMINED DURING 1950.

Article.	Informal.		Statutory.		Percentage adulterated.		Percentage of Samples taken in each Group to Total.	
	No. Taken	No. Non-Gen.	No. Taken	No. Non-Gen.	Infor. %	Stat. %	Infor. %	Stat. %
Milk	2,793	33	879	9	1·18	1·02	63·39	66·19
Milk Products (Butter, Cheese, etc.)	23	—	44	—	—	—	0·52	3·31
Meats and Meat Food Products	437	24	195	17	5·49	8·72	9·92	14·69
Cereals, etc.	88	—	65	—	—	—	2·00	4·89
Spiritous Liquors	21	—	15	4	—	26·66	0·48	1·13
Drugs	333	6	14	2	1·80	14·29	7·56	1·05
Flavourings and Condiments	105	2	21	1	1·90	4·76	2·38	1·59
Ice-cream	320	—	—	—	—	—	7·26	—
Miscellaneous Foods	286	7	95	4	2·45	4·21	6·49	7·15
	4,406	72	1,328	37	1·63	2·79	100·00	100·00

ABSTRACT OF INFORMAL AND STATUTORY SAMPLES OF SWEET MILK EXAMINED DURING 1950.

Month.	Informal.				Statutory.			
	No. exam- ined.	No. Non- Gen.	Average per- centage Composition.		No. exam- ined.	No. Non- Gen.	Average per- centage Composition.	
			Fat. %	Non- Fat. %			Fat. %	Non- Fat. %
January ...	213	1	3.75	8.87	75	1	3.65	8.83
February ...	242	2	3.70	8.88	77	1	3.62	8.88
March ...	248	3	3.70	8.88	79	1	3.64	8.70
April ...	239	2	3.71	8.81	76	—	3.58	8.80
May ...	232	5	3.69	8.90	75	—	3.65	8.81
June ...	224	4	3.68	8.87	75	—	3.60	8.89
July ...	189	—	3.72	8.86	64	1	3.65	8.83
August ...	219	2	3.75	8.79	60	—	3.68	8.80
September ...	225	—	4.01	8.89	72	1	3.83	8.81
October ...	262	3	4.12	8.77	75	3	4.07	8.73
November ...	260	6	4.03	8.77	74	—	3.96	8.65
December ...	240	5	3.86	8.85	77	1	3.79	8.82
	2,793	33	3.81	8.84	879	9	3.73	8.80

Percentage Adulterated—1.18.

Percentage Adulterated—1.02.

Artificial Cream Act, 1929.—There are no manufacturers or dealers in the City registered with the Food and Drugs Authority.

The Public Health (Preservatives, etc., in Food) Regulations. There were 15 contraventions of these Regulations during the year compared with 10 last year. The articles of food concerned consisted mainly of butcher's mince and sausages. Two samples of mince were found to contain preservatives during the prohibited period, October to May, and eleven samples of sausages contained preservative in excess of the limit specified.

Two samples, one of candied peel and one of Chellies (a manufactured substitute for glacé cherries) were found to contain excessive amounts of preservative. The following list shows the food in which preservatives were found along with their nature and amount. It will be observed that one sample of sausages contained 1,952 parts of Sulphur dioxide (SO₂) per million parts of sausage, i.e. 1,502 parts of sulphur dioxide in excess of the limit specified in the Regulations.

ABSTRACT OF ARTICLES OF FOOD IN WHICH PRESERVATIVES, ETC., WERE FOUND AND THE NATURE AND AMOUNT, DURING YEAR ENDED 31ST DECEMBER, 1950.

Nature of Article.	Number examined.	Number in which Preservatives, etc., were found.	Nature of Preservative, etc.	Parts per Million.	
				Highest.	Lowest.
Beer	15	4	Sulphur Dioxide	51	19
Cider	1	1	" "	83	
Cornflour	37	4	" "	96	12
Custard Powder ...	23	1	" "	38	
Fruit Wines	7	6	Benzoic Acid	408	188
Glacé Fruit	4	3	" "	371	51
Gelatine	16	16	Sulphur Dioxide	755	28
Margarine	17	17	Borax	0.23%	0.06%
Mince	65	25	Sulphur Dioxide	512	19
Peel, Candied	8	4	" "	365	10
Raisins	26	4	" "	250	38
Rice	16	1	" "	32	
Sausages	435	318	" "	1,952	6
Synthetic Fruit ... }	2	{	" "	1,170	
" " ... }			Benzoic Acid	1,081	
Syrup of Figs	6	1	" "	0.20%	
Table Jellies	14	8	Sulphur Dioxide	115	13
Vegetables, Dried ...	4	1	" "	179	

The Milk (Special Designations) Orders (Scotland), 1936-49.—Four hundred and forty-three samples of Certified and Tuberculin-Tested milk were taken for examination throughout the year. Ninety-seven were examined biologically but none was found to have tubercle bacilli. Seven of twenty-four samples of Standard milk were likewise examined with negative result.

There are 16 Pasteurising and 8 Heat-Treatment plants licensed in the City by the Local Authority, an increase of five and a decrease of three respectively from last year. This reflects the anticipation by distributors of a withdrawal of the latter designation in the near future. The introduction of a Heat-Treated designation was recognised as an emergency war-time measure. Premiums for heat treating milk paid

by the Ministry of Food were continued. Regular inspections during processing and examinations of plant and equipment after washing and sterilising are carried out by officers of the Department. Samples are taken and results notified to licencees. Reports on special forms are forwarded through the Town Clerk's Department to the Department of Health and to the Ministry of Food. The grades of designated milk dealt in by dairymen in the City are shown in the appended table with the average daily quantities and number of producers and dealers.

Mention may be made here of the coming into operation on 1st October, 1950, of the new Milk (Special Designations) Act, 1949. This Act provides, *inter alia*, for the compulsory use of Special Designations on sales of milk by retail for human consumption in "Specified Areas." As it is anticipated that Glasgow will probably be the first of the large Cities to be so declared, the decision of the Minister of Food is awaited with interest.

CERTIFIED—						1950	1949	1948
Producers	...	...	...	...	...	2	2	1
Dealers	...	...	...	...	...	357	328	313
Total Average Daily Sales (Gallons)						3,883	3,211	2,305
TUBERCULIN-TESTED—								
Producers	...	...	...	...	...	29	24	18
Bottling Establishments	...	...	...	...	...	9	6	6
Dealers	...	...	...	...	...	600	532	518
Total Average Daily Sales (Gallons)						*3,956	†3,532	‡3,148
STANDARD—								
Producers	...	...	...	...	...	2	5	9
Bottling Establishments	...	...	...	...	...	—	—	—
Dealers	...	...	...	...	...	—	—	—
Total Average Daily Sales (City Producers only) (Gallons)						104	236	439
PASTEURISED—								
Pasteurising Establishments	...	...	...	...	...	16	11	11
Dealers	...	...	...	...	...	502	670	650
Total Average Daily Sales (Gallons)						80,284	65,700	62,448
HEAT TREATED—								
Heat Treating Establishments	...	...	...	...	...	8	11	12
Total Average Daily Sales (Gallons)						9,952	16,598	19,856

* Includes 1,738 gallons Tuberculin-Tested (Pasteurised).

† Includes 1,429 gallons Tuberculin-Tested (Pasteurised).

‡ Includes 888 gallons Tuberculin-Tested (Pasteurised).

1,116 samples of the foregoing were taken during the year. All were submitted to the City Bacteriologist and the City Analyst for examination regarding their conformity with the requirements of the Orders. In the following table the results are set out in detail :—

RESULTS OF EXAMINATIONS OF DESIGNATED MILK (1)

BACTERIOLOGICAL EXAMINATION—			CERTIFIED.	TUBERCULIN TESTED.	STANDARD.
			(a) Not more than 30,000 Bacteria per ml. (b) No Coliform Bacillus in 1/10 ml.	(a) Not more than 200,000 Bacteria per ml. (b) No Coliform Bacillus in 1/100 ml.	(a) Not more than 200,000 Bacteria per ml. (b) No Coliform Bacillus in 1/100 ml.
Number examined	...	...	206	237	24
Number conforming to all requirements	...	...	167	204	20
Number exceeding count only	...	...	13	14	2
Number exceeding count and having coliforms present	...	...	7	5	—
Number conforming to count but having coliforms present	...	...	19	14	2
Agar Count per ml. { Highest	...	...	421,000	1,000,000 +	1,000,000 +
Lowest	...	...	200	1,000	500
Presence of Coliforms { —	...	...	180	218	22
+	...	...	26	19	2
CHEMICAL EXAMINATION—					
Fat Minimum 3% { Number 3% or over	...	...	198	227	22
Number below 3%	...	...	5	1	—
Average Butter Fat content	...	...	3.82	4.08	4.21

RESULTS OF EXAMINATIONS OF DESIGNATED MILK (2).

			TUBERCULIN TESTED (PASTEURISED).	PASTEURISED.	HEAT TREATED.
			(a) Not more than 30,000 Bacteria per ml. (b) No Coliform Bacillus in 1/10 ml. (c) Not more than 2.3 Lovibond Blue Units (Phosphatase Test).	(a) No Coliform Bacillus in 1/100 ml. (b) Not more than 2.3 Lovibond Blue Units. (Phosphatase Test)	(a) Not more than 2.3 Lovibond. Blue Units (Phosphatase Test.) (b) No Decolorisation prior to 12 noon on day following taking of sample.
Number examined	...	...	73	358	218
Number passing each Test	...	...	62	341	194
Number failing in one or more of the Tests	...	...	11	17	24
Milk-Fat Test { No. Satisfactory	...	...	73	357	218
{ No. Unsatisfactory	...	...	—	1	—
Average Butter Fat content	...	...	3.79	3.76	3.64

The tables show that 88·53 per cent. of the samples examined complied with the required standards as compared with 83·59 per cent. last year. Chemical examination showed seven samples to be slightly deficient in fat, the others consisted of genuine milk.

Milk Supply to the Hospitals of the Western Regional Hospital Board.—Examinations of the milk supplied to the various hospitals of the Western Regional Hospital Board were continued throughout the year. The milk is supplied by different farms in the City and adjacent counties and by dairymen who hold licences to Pasteurise or Heat-Treat milk. The Department's milk officers take samples on delivery while samples are sent also by hospital officials. Results of examinations are forwarded to the Medical Superintendents or to the suppliers. Two hundred and ninety-six samples were taken during the year and 45 of these failed in one way or another to conform to the required standard of the particular designation. The results of these examinations are given in the following table :—

	Examined	Failed
Certified	10	—
Tuberculin-Tested	189	41
Standard	12	1
Pasteurised	72	3
Heat-Treated	13	—

These results showed a marked improvement in the Heat-Treated grade from last year when seven out of 12 samples failed. In addition to above examinations 35 of the samples—two of Certified Milk and 33 of Tuberculin-Tested milk—were examined for the presence of Tubercle Bacilli with negative result.

Examination of Ordinary Market Milk for the presence of Tubercle Bacilli.—Milk arriving from producers in the neighbouring counties was sampled at City dairies regularly throughout the year. The City Bacteriologist examined biologically 289 samples and one was found to be infected with tubercle bacilli (a percentage of 0·35), compared with four last year (a percentage of 1·41). The steady increase in the number of "Attested" herds within the area of the Scottish Milk Marketing Board is resulting in a corresponding drop in the incidence of positive results in these milks. At the time of writing, the percentage of these dairy herds has now risen to 91 per cent. The bonus payable to Tuberculin-Tested milk producers in the past is continued under the new Tuberculosis (Attested Herds) Scheme, 1950, which came into operation on 1st October, 1950, and applies to the whole of

Great Britain. The following table gives the figures for the year with those of the two previous years and the counties where the milks were produced. It should be remembered that this milk sampled at City dairies is milk arriving for the purpose of being Pasteurised before entering the liquid market.

SAMPLES OF PRODUCERS' MILK SUPPLIES EXAMINED FOR THE
PRESENCE OF TUBERCLE BACILLI.

County.	1950		1949		1948	
	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.
Ayr	165	1	185	1	138	—
Dunbarton ...	7	—	6	1	9	—
Lanark	65	—	66	2	90	2
Renfrew	39	—	18	—	14	—
Stirling	13	—	8	—	16	—
	<u>289</u>	<u>1</u>	<u>283</u>	<u>4</u>	<u>267</u>	<u>2</u>

Bacterial Counts of Ordinary Market Milk Supplied to the City.—Three hundred and eleven samples were examined bacteriologically. The results are shown in the following table :—

BACTERIAL COUNTS OF ORDINARY MARKET MILK SUPPLIED TO THE
CITY.

Number Examined.	Average Number of Bacteria per ml.					Coliform Organisms in 1/100 ml. (2 days).	
	Under 100,000.	100,000 to 200,000.	200,000 to 500,000.	500,000 to 1,000,000.	Over 1,000,000.	—	+
311	263	12	17	9	10	275	36

From the aspect of bacteria count 216 or 82·13 per cent. of the 263 samples with less than 100,000 bacteria per millilitre were of Certified quality compared with 207 or 80·54 per cent. of the 257 in this category last year. Two hundred and seventy-five (88·42 per cent.) of the total number of samples taken were of Tuberculin-Tested quality compared with 276 (87·89 per cent.) in 1949. Coliforms were absent in 275 (88·42 per cent.) compared with 263 (83·74 per cent.) in 1949. Three hundred and eleven samples submitted for chemical analysis showed ten to be low in solids not fat and five to be deficient in fat. The average fat and non-fat content of the samples was 3·79 and 8·81 per cent. respectively.

In contrast to an opinion recently expressed by an eminent dairy scientist in England that the quality of milk in that country was declining over the last few years the standard has been maintained in

this City. The average fat and non-fatty solids of these milks for the years 1944-50 inclusive has been 3.75 and 8.76 respectively. The same conclusion can be arrived at from an examination of the results of analysis of milks supplied to the Glasgow school children.

Undesignated Raw Milk as Retailed in the City.—Forty-four samples of raw milk as retailed from shops and vehicles in the City were taken for examination. Of the 20 samples submitted for biological examination one from a City producer was found to be tuberculous. This milk supply was immediately withdrawn from sale until after it had been Pasteurised and the herd given a clear bill of health from the veterinary surgeon of the Department of Agriculture for Scotland. No sample of 18 examined last year gave a positive result in this category. All adverse results are communicated to the Medical Officer of Health of the district where the milk is produced and steps taken to prevent the sale of infected milk. The sale of this type of milk will be illegal when the City is included in a "Specified Area" already referred to. All samples were examined for the number of bacteria and the presence of coliform organisms. Results are appended as follows :—

BACTERIA COUNTS OF RAW (UNTREATED) MILK AS RETAILED IN THE CITY.

Number Examined	Average Number of Bacteria per ml.						Coliforms in 1/100 ml. (2 days).	
	Under 30,000	30,000 to 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	—	+
44	36	3	3	2	—	—	40	4

Milk to School Children.—Milk of Pasteurised quality is supplied to the schools by four contractors. One hundred and sixty-eight samples were examined. None was found infected with tubercle bacilli.

Below is shown a table giving a summary of results of the 168 samples submitted for examination during the year in terms of the Milk (Special Designations) Orders. Eleven failed in one or other of the two prescribed tests.

SCHOOL MILK (PASTEURISED).

No. Examined.	No. passing both Phosphatase and Coliform Tests.	No. failing Phosphatase Test only.	No. failing Coliform Tests only.	No. failing both Tests	No. Tuberculous.	Average Fat Solids.	Average Non-Fat Solids.
168	157	1	10	—	—	3.88	8.76

The following table shows the average daily quantity supplied each month with the numbers of school days in each. The total consumption this year amounted to 1,328,054 gallons, a decrease of 39,651 gallons over last year.

AVERAGE DAILY QUANTITIES SUPPLIED.

Month.	Gallons.	School Days.	Month.	Gallons.	School Days
January ...	6,429	17	July	†13,794	*—
February ...	6,520	19	August	†51,441	*—
March ...	6,539	23	September	6,699	20
April ...	4,969	18	October	6,532	22
May ...	6,367	21	November	6,469	22
June ...	6,422	21	December	6,327	16

* No school days other than for the transferred schools these months but children are supplied with milk at the feeding centres and schools.

† Monthly total.

The quality standard of these milks has been well maintained, being Fat 3·72 and Solids not fat, 8·69, the average for the seven years from 1944-1950 inclusive.

Milk Summary.—The designation “ Standard ” will under the new Act be excluded after 1st October, 1954. Seven samples of this milk were submitted for biological examination during the year with negative results. Five new Tuberculin-Tested licences were issued to City producers. Three Standard licences were removed from the register.

Under the terms of the Tuberculosis (Attested Herds) Scheme, 1950, which operates from 1st October, 1950, the Minister of Agriculture may keep a register of every herd of cattle which qualifies for registration in accordance with the provisions of the Scheme. To qualify for bonus payments holders of Tuberculin-Tested licences prior to the commencement of the Scheme are required to be entered in the register of Attested Herds. Thereafter herds must show evidence of two clear Tuberculin Tests before being accepted into the Scheme as Supervised Herds. Supervised Herds must pass an additional clear Tuberculin Test before being entered in the register as Attested Herds. The bonus payable to producers of Tuberculin-Tested milk under the Scheme remains at 4d. per gallon over the Standard price but is limited to four years from the commencing date. Thereafter for the next two succeeding years it is cut by half and no bonus will be payable thereafter. Bonus payments of £2 per animal for four years and £1 for the next succeeding two years are paid to producers of beef herds with a termination of all payments after six years as is the case with the

bonus on milk. Restrictions are placed on the movement of cattle into or outwith Attested Areas and provision made for the slaughter of reactors if valued under £100. This last provision will prevent a reactor from being sold in an open market, the principal cause in the past of the higher proportion of cases of Tuberculous milk found in Standard licensed herds. This enactment is the greatest attempt yet made in this country to eradicate Tuberculosis from both our dairy and our beef herds. At the same time our standards of hygiene in byre and dairy construction and in the practice of dairying are rising rapidly as a result of this and other recent statutes.

There are 16 Pasteurising and eight Heat-Treatment establishments licensed by the Local Authority in the City.

There are 40 registered milk producers in the City compared with 43 last year, two Certified herds, 29 Tuberculin-Tested herds, 2 Standard herds, and 7 ordinary ungraded herds.

The approximate daily sales in the City of designated milks are Certified 3,883 gallons, Tuberculin-Tested *3,956 gallons, Standard 104 gallons, Pasteurised 80,284 gallons, Heat-Treated 9,952 gallons.

The average daily consumption of milk in the City remains around 95,000 gallons as in 1949. Approximately 95 per cent. of this quantity is pasteurised or heat-treated. Certified and Tuberculin-Tested milk is included in the five per cent. sold as raw untreated milk. There are 1,408 registered dairies in the City, three more than last year, including the forty producers. The number of shops selling milk exclusively in sealed bottles is steadily increasing and at 31st December, 1950, was 79 per cent. of the whole supply. The sale of loose milk from cans on vehicles in the street is now almost a thing of the past. Formal and informal samples taken for analysis during the year numbered 3,672 and the average fat content was 3.79 per cent. There are 14 wholesalers, 27 who are both wholesalers and retailers, 1,124 retailers who handle bottled milk only, 192 retailers of bulk or loose milk and 11 retailers with premises beyond the City boundary who retail milk within the City. A qualified registration is granted to the retailers of bottled milk only on the condition that it is supplied to the consumer in the properly closed and unopened bottles in which it is received. In those instances, therefore, the articles of the Dairy Bye-Laws cannot be applied in their entirety. There were 14,321 visits of inspection

* Includes 1,738 gallons Tuberculin-Tested Pasteurised.

made to dairies during the year, 18 contraventions were disclosed and dealt with and in eight instances repairs or alterations were carried out.

No proceedings were taken against dairymen during the year for contraventions of either the dairy bye-laws or the Milk and Dairies (Scotland) Order, 1934, the terms of which were duly observed.

There were 379 inspections of 52 byres in 40 milk producers' premises carried out. These centres of production were found in general to be satisfactory and no contravention of the bye-laws was reported. There is accommodation for 1,328 cows and the average number kept is around 1,120.

Exempted Premises.—There are eight byres in the City where persons keep cows for their own use. The average number of cows kept in these byres is 11. The Western Regional Hospital Board have two Attested herds within the City numbering approximately 350 animals. The milk produced in these byres is utilised in the Hospitals only. All of these premises are visited regularly and found to be well managed.

Inspection of Food and Food Premises.—There were 9,345 inspections made of markets, stores, shops and other places where food is handled during the year. There were 1,259 lots of food destroyed or passed as suitable only for the food of animals or poultry or in a few cases returned to premises where reconditioning could be carried out. The total quantity amounted to 171 tons, 10 cwts., 105½ lbs. These foods consisted in the majority of cases of canned food such as meat, milk, fish, vegetables and fruit which had become blown or punctured but in some cases consisted of fresh fruit and vegetables subjected to spoilage owing to delay in transit or such other cause during warm weather. Each year large quantities of soft fruit are destroyed for this reason in the Glasgow market. The era of refrigerated road and railway food vans has not yet arrived for British Railways. Some cereals, biscuits, dried fruit and miscellaneous articles make up the total.

Inspection of food premises disclosed instances where cleansing, limewashing or repairs were necessary. In most cases a verbal request is sufficient to obtain a remedy but in others written intimations were made. In all cases the work was carried out in a satisfactory manner.

Bye-Laws for Regulating Street Trading.—A very satisfactory liaison continues to exist between the Police Registrar, the Chief Constable and the Health Department's Food Inspectors. The actual check on the traders' activities, including the registration and issue of his badge rests with the Police Department but no trader is issued with a badge to trade in food of any kind until his storage accommodation has been approved by the food inspectors of the Health and Welfare Department. The bona fide street trader now realises that the new bye-laws are indeed a blessing in disguise for him since they have eliminated the type of vendor who brought his calling into disrepute.

Public Health (Meat) Regulations (Scotland) 1932.—Eight renewals of registration were granted and certificates of approved storage accommodation issued in respect of them. Thirty-three copies of certificates were provided in respect of vehicles operating from these premises.

Fertilisers and Feeding Stuffs Act, 1926.—Twenty-four samples of feeding stuffs and four samples of fertilisers were obtained from farmers and from merchants within the City and submitted for analysis to the Agricultural Analyst. Seven samples of feeding stuffs were found not to be in conformity with the declared statements on the accompanying invoices. There was one sample of fertiliser which on analysis was found to be deficient in nitrogen. In all cases of non-compliance the deficiencies were reported to the sellers who, after investigation, tendered explanations for the failures and these were accepted. In the case of the fertiliser deficiency the manufacturer had forwarded the wrong commodity with a mistaken analysis. A repeat sample of a fresh supply was obtained and found to comply with the Regulations. In all cases results were conveyed to the Department of Agriculture for Scotland.

The Ice-cream (Scotland) Regulations, 1948.—The number of registrations under these regulations steadily increases. The supply position is still difficult and the demands of the National Defence programme have tended to slow down deliveries still further in some cases. Nevertheless 447 applicants had been granted certificates of registration for premises and 234 for vehicles at the end of the year. There remain several premises in which registration has not yet been approved. There were 5,492 inspections of premises made and as a result four communications for the repair of premises were issued in addition to verbal requests of a minor nature. These requests were complied with and nineteen contraventions were corrected.

To many small business dealers the introduction of modern mechanical equipment, consisting frequently of homogenisers, emulsifiers, pumps, pipe lines, valves, and coolers presents problems and potential difficulties not adequately appreciated at first by them. All too often they seem to believe that having been persuaded into the expenditure of considerable sums of money on the latest type of processing plant they have obtained a press button method and have honoured their obligations under the Regulations. They are grieved at the realisation that the more complicated the machine the more care and attention it frequently requires if satisfactory results are to be obtained. The inspectors therefore are obliged to concede considerable time and patience in endeavouring to educate processors in a regular hygienic routine after every processing operation in order to obtain satisfactory results. It cannot be too strongly emphasised that there is no substitute for "Elbow Grease." The complete daily dismantling of all movable parts and the thorough cleansing of every surface in which ice-cream mix comes in contact, so that no vestige of mix residue remains is essential, and nothing less can be accepted as satisfactory. Gradually these efforts are bearing fruit and several manufacturers, including some small one-man-businesses, have premises and practice methods which are a credit to themselves, a standing advertisement for their product and a source of satisfaction to the local authority's officers.

During the year 311 samples of ice-cream were examined by the City Analyst and 330 by the City Bacteriologist. The following table gives details of the results found. No standards have yet been fixed by statute as at 31st December, 1950.

SAMPLES OF ICE-CREAM, 1950.

No. Examined 330	No. under 100,000 with Coliforms Absent 273	No. under 100,000 with Coliforms Present 20	No. over 100,000 with Coliforms Absent 13	No. over 100,000 with Coliforms Present 24
Methylene Blue Test				
No. Examined 311	No. not Decolorised 296		No. Decolorised 15	
Phosphatase Test				
No. Examined 311	No. Passing Test 262		No. Failing in Test 49	
Fat Content				
No. Examined 311	Average Fat Percentage 5.55		Highest 14.87	Lowest 0.77

Cleansing of Milk Bottles.—This very important aspect of Public Health administration continued to receive attention. During the year 239 bottles were submitted to bacteriological examination. Sixty-six of the bottles were reported unsatisfactory on the basis of 600 organisms per pint bottle and intimations issued to the responsible dairymen. The results found by the different methods employed are as follows :—

	Number of Bottles	Satis- factory	Unsatis- factory	Percentage Satis- factory
Washed by Soaker Sprayer Type Machine	18	18	—	100
Washed by Jet Type Machine	123	109	14	89
Washed by Rotary Brushes	94	43	51	46
Washed by Hand Brushes	4	3	1	75

Washing by hand, by rotary brushes and by some types of jet washing machine still show too high a percentage of unsatisfactory bottles. The premises responsible continue to occupy the attention of the inspectors who frequently find that the detergent used in the washing machine has been allowed to fall below the required strength or that little or no detergent is used at all. This fact combined with lack of facilities or the failure to use them for submitting the bottles to high temperature is responsible for these unsatisfactory results.

FOOD AND DRUGS (ADULTERATION) ACT, 1928—SECTION 8.

Registration of Butter Factories and Wholesale Dealers in Margarine, etc.—There are 15 butter factories, 120 wholesale dealers in margarine and one margarine factory on the register of the Local Authority. These premises were visited and samples submitted for examination by the City Analyst. All the samples were found to be genuine and no contravention was reported.

Details of the number on the register at the end of the year are as follow :—

Margarine Factories	...	...	...	...	...	1
Wholesale Dealers in Margarine	...	...	...	...	...	120
Factories of or Wholesale Dealers in Milk Blended Butter	...	...	...	...	...	—
Butter Factories	...	...	...	...	...	15

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Details of Samples, etc., in which Proceedings were instituted during 1950.

Number of complaints.	Nature of sample and alleged offence.	Number of convictions.	Amount of fines imposed.	Number dismissed or found "not proven."	Number deserted simpliciter.
2	Milk—Deficient in milk fat ...	2	£2	—	—
1	Milk—Deficient in solids other than fat	1	5	—	—
2	Mince—Contained preservatives during proscribed period	2	5	—	—
11	Sausages—Contained an excess of preservatives	11	19	—	—
3	Whisky—Contained an excess of water	3	11	—	—
1	Candied Peel—Contained an excess of preservatives ...	1	3	—	—
1	Sulphur Ointment—Deficient in sulphur	1	5	—	—
1	Chellies—Contained preservatives	—	—	1	—
<u>22</u>		<u>21</u>	<u>£50</u>	<u>1</u>	<u>—</u>

ABSTRACT OF PROCEEDINGS UNDER OTHER THAN FOOD AND DRUGS (ADULTERATION) ACT, 1928.

GLASGOW POLICE (AMENDMENT) ACT, 1890.

1	Having unsound foodstuffs in dirty premises	—	—	1	—
<u>1</u>		<u>—</u>	<u>—</u>	<u>1</u>	<u>—</u>

GLASGOW STREET TRADING BYE-LAWS.

1	Engaging in street trading without a permit	1	2	—	—
<u>1</u>		<u>1</u>	<u>£2</u>	<u>—</u>	<u>—</u>

THE ICE-CREAM (SCOTLAND) REGULATIONS, 1948.

1	Using an unregistered vehicle for the sale of ice-cream ...	1	Admonished	—	—
2	Failing to maintain standard of cleanliness	1	5	1	—
1	Failing to provide the person in charge of vehicle with authorisation to sell ice-cream	1	1	—	—
<u>4</u>		<u>3</u>	<u>£6</u>	<u>1</u>	<u>—</u>

SPECIAL SANITARY OPERATIONS.

	1944	1945	1946	1947	1948	1949	1950	
(a) FOOD AND DRUGS, ETC.—								
I.— <i>Dairies</i> —								
Registered during year	143	103	160	250	193	185	209	
Removed from Register	227	110	182	269	205	193	206	
On Register at 31st Dec.	1,474	1,467	1,445	1,425	1,413	1,405	1,408	
No. of Inspections ...	15,829	15,719	15,957	16,071	15,789	15,179	14,321	
Contraventions of Orders, Acts or Byelaws ...	55	54	65	40	35	15	9	
Prosecutions for same	6	4	5	—	—	—	—	
Repairs or Improve- ments effected ...	83	91	75	91	36	10	7	
II.— <i>Dealers in Ice-Cream</i> —								
Registered during year—								
Premises ...	—	94	52	42	New Regu- lations now opera- tive	263	215	
Vehicles ...						187	81	
Removed from Register—								
Premises ...	1	118	41	36		—	31	
Vehicles ...						—	34	
On Register at 31st Dec.—								
Premises ...	451	427	438	444		263	447	
Vehicles ...						187	234	
No. of Inspections ...	1,144	3,103	3,206	3,873	3,902	6,610	5,492	
Contraventions of Acts, Orders or Bye-laws	—	5	11	4	3	5	19	
Prosecutions for same	—	1	—	—	—	—	4	
Repairs or Improve- ments effected ...	—	18	14	16	27	9	4	
III.— <i>Byres for Milch Cows</i> —								
No. of Dairy Byres as at 31st December ...	64	64	58	59	57	55	52	
No. of Cows licensed for	1,665	1,665	1,467	1,499	1,458	1,383	1,328	
Average Number kept	1,576	1,571	1,239	1,230	1,281	1,165	1,120	
No. of Inspections ...	538	425	477	423	428	404	379	
IV.— <i>Unwholesome Food</i> —								
No. of Inspections ...	10,468	10,026	9,905	10,328	10,493	9,517	9,345	
No. of Lots dealt with	2,075	2,308	2,339	3,180	2,380	1,267	1,259	
Nature of Food de- stroyed at Inspector's instance with Owner's consent.	tons 180 cwts. 17 lbs.	tons 221 cwts. 6 lbs.	tons 145 cwts. 2 lbs.	tons 139 cwts. 16 lbs.	tons 91 cwts. 4 lbs.	tons 110 cwts. 6 lbs.	tons 171 cwts. 10 lbs.	
Assorted Foodstuffs ...	—	—	—	30	71	93	105½	

SPECIAL SANITARY OPERATIONS—*Continued.*

	1944.	1945.	1946.	1947.	1948.	1949.	1950
<i>V.—Food and Drugs (Adulteration) Act—</i>							
Informal samples analysed ...	2,098	2,183	2,877	3,372	3,659	4,374	4,406
Statutory samples analysed ...	1,251	1,241	1,245	1,314	1,291	1,326	1,328
Statutory samples found non-genuine	36	45	35	32	34	27	37
Proceedings instituted	28	39	27	24	24	16	22
No. of Convictions ...	25	33	22	17	20	15	20
Amount of Fines imposed ...	£103	£124	£80	£63	£70	£50	£50
No. dismissed or found "Not Proven" ...	—	—	1	3	1	—	1
No. deserted simpliciter	2	6	2	4	3	1	—
Warranty Defence sustained ...	1	—	—	—	—	—	—
No. Pending ...	—	—	—	—	—	—	—
No. Withdrawn ...	—	—	—	—	—	—	—
No. Dismissed (first offenders) ...	—	—	2	—	—	—	1

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Table showing Nature and Number of Total Samples procured and Examined during 1950.

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken.	No. Non-genuine.
Aerated Waters ...	6	—	—	—
Almonds, Ground ...	5	—	1	—
Alum ...	10	1	—	—
Arrowroot ...	6	—	4	—
Aspirin ...	13	—	—	—
Baking Powder ...	18	—	2	—
Barley Flour ...	1	—	—	—
Beer ...	15	—	—	—
Bicarbonate of Soda ...	3	—	2	—
Black Pudding ...	3	—	—	—
Boracic Acid ...	10	—	—	—
Borax ...	29	—	1	—
Brandy ...	1	—	—	—
Brose Meal ...	5	—	2	—
Butter ...	3	—	21	—
Cake Decorations, Edible ...	3	—	—	—
Calamine Lotion ...	4	—	—	—
Calcium Lactate ...	9	—	—	—
Cascara Sagrada ...	6	—	—	—
Celery Salt ...	1	—	—	—
Cheese ...	—	—	8	—
Chemical Food ...	1	—	—	—
Cherries, Glacé ...	2	—	—	—
Chillie Paste ...	4	—	—	—
Chocolate Coating ...	9	—	—	—
Chocolate, Drinking ...	—	—	1	—
Cider ...	1	—	—	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—*Contd.*

Table showing Nature and Number of Total Samples Procured and Examined during 1950.—Contd.

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken.	No. Non-genuine.
Cinnamon	18	—	6	—
Cocoa	9	—	9	—
Coconut, Desiccated	4	—	3	—
Coffee	7	—	10	—
Coffee with Chicory	10	—	—	—
Confections	4	—	—	—
Cooking Fat	15	—	9	—
Cornflour	23	—	14	—
Cream, Synthetic	15	—	—	—
Cream of Magnesia	1	—	—	—
Cream of Tartar	38	—	6	—
Currants	7	—	13	—
Curry Powder	5	—	2	—
Custard Powder	12	—	11	—
Dates	3	—	3	—
Date Spread	1	—	—	—
Doughnuts	2	—	—	—
Farola	2	—	3	—
Figs	1	—	2	—
Fish Cakes	8	1	1	1
Fish Dressing	2	—	—	—
Fish Paste	9	—	—	—
Flavourings	7	—	—	—
Flour	8	—	5	—
Flowers of Sulphur	5	—	—	—
Friar's Balsam	5	—	—	—
Fruit, Crystallised	1	1	—	—
Fruit Pudding	4	—	1	—
Fruit, Synthetic	1	1	1	1
Gelatine	14	—	2	—
Ginger	19	—	3	—
Glycerine of Thymol	3	—	—	—
Grape Nuts	—	—	1	—
Gravies and Gravy Powders	2	—	—	—
Gregory's Powder	14	—	2	1
Glucose	—	—	1	—
Hydrogen Peroxide	9	1	—	—
Ice-cream	320	—	—	—
Jams and Jellies	12	—	—	—
Lard	—	—	2	—
Lemonade Powder and Tablets	5	—	—	—
Liquid Paraffin	2	—	—	—
Liquorice	2	—	—	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.—*Contd.*
*Table showing Nature and Number of Total Samples Procured and
Examined during 1950.—Contd.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non- genuine.	No. Taken	No. Non- genuine.
Liquorice Powder, Compound ...	12	—	—	—
Macaroni	2	—	4	—
Maple Syrup	1	1	—	—
Margarine	2	—	15	—
Mayonnaise	1	—	—	—
Meat Cubes	2	—	—	—
Meat, Jellied	2	—	—	—
Meat Paste	31	—	—	—
Meat, Potted	5	—	—	—
Meat, Pressed	7	—	—	—
Meat Roll	1	—	—	—
Milk, Condensed	15	—	—	—
Milk Lollipops	2	—	—	—
Milk Shake	1	—	—	—
Mince	21	3	44	2
Mincemeat	8	—	—	—
Molasses	2	—	—	—
Mustard	5	—	2	—
Oat Flour	—	—	1	—
Oatmeal	3	—	—	—
Oil, Almond	4	—	—	—
Oil, Camphorated	4	—	1	1
Oil, Castor	9	—	—	—
Oil, Edible	1	—	—	—
Oil, Eucalyptus	12	—	—	—
Oil, Olive	7	—	—	—
Oil, Vitaminised	1	—	—	—
Oil, Zinc and Castor	1	—	—	—
Ointments, Medicinal	34	1	1	—
Pastry Mixture	4	—	—	—
Pease Meal	—	—	1	—
Peel	6	—	2	1
Peppers	6	—	3	—
Petroleum Jelly	8	—	—	—
Pineapple, Glace	—	—	1	1
Potassium Permanganate	19	—	—	—
Potato Crisps	22	—	1	—
Powder, Medicinal	—	—	1	—
Prunes	9	—	12	—
Raisins	12	—	9	—
Rennet, Essence of	2	—	—	—
Rice	6	—	10	—
Rice Flour	2	—	2	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928—*Contd.*
*Table showing Nature and Number of Total Samples Procured and
Examined during 1950—Contd.*

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non- genuine.	No. Taken.	No. Non- genuine.
Rusk Meal	2	—	—	—
Saccharin	2	—	—	—
Sage and Oniou Stuffing	—	—	1	—
Sage	5	—	1	—
Salad Cream	6	—	—	—
Salt	10	—	—	—
Salts, Medicinal	22	—	—	—
Sauces	48	—	1	—
Sausages	304	21	131	13
Sausage Rolls	1	—	—	—
Semola	—	—	3	—
Semolina	11	—	8	—
Senna, Elixir of	2	1	—	—
Senna Pods	4	1	—	—
Soft Drink Powders	3	—	—	—
Soup	1	—	—	—
Soya Flour	—	—	1	—
Stewed Steak	—	—	2	2
Stout	1	—	—	—
Suet	1	—	4	—
Sugars	6	—	4	—
Sulphur, Sublimed	4	—	—	—
Sultanas	—	—	5	—
Sweet Milk	2,793	33	879	9
Syrup	1	—	—	—
Syrup of Figs	6	—	—	—
Table Jellies	14	—	—	—
Tapioca	2	—	2	—
Tartaric Acid	6	—	—	—
Tea	6	—	—	—
Tincture of Iodine	9	2	—	—
Tomato Paste	2	—	—	—
Tonic Wines	3	2	—	—
Vegetables, Dehydrated	4	—	—	—
Vermicelli	4	—	2	—
Vinegar	23	2	7	1
Whisky	3	—	15	4
Wine Essence	1	—	—	—
Wines, Non-alcoholic	7	—	—	—
	<u>4,406</u>	<u>72</u>	<u>1,328</u>	<u>37</u>

RUSSELL BARR,
Senior Food Inspector.

SECTION XI.

AIR PURIFICATION AND SMOKE ABATEMENT.

The primary objective of this section of the Department is to attain and maintain as high a standard of atmospheric purity as possible, nor is the necessity for fuel economy and efficiency lost sight of. The specialised knowledge and experience of the inspectorate fulfil the double function of maintaining high public health standards and at the same time assisting the individual plant and fuel user. Within recent years there has been close co-operation among the various local authorities, the Ministry of Fuel and Power, and the National Smoke Abatement Society. These bodies now frequently consult on such subjects as smokeless zones and district heating, and their continued co-operation is essential if cities and large urban areas are to attain a reasonable degree of atmospheric purity.

Work carried out during 1950.—The following table summarises the work of this section during the past year. The figures include both routine and special operations and the work in the dock areas involving shipping.

Observations on chimneys	...	...	...	...	21,595
Inspections of steam boiler and other furnaces	...	...	...	...	407
Intimations of excess smoke served on users	...	...	...	...	306
Initial warning notices issued	...	...	...	...	87

It will be noted that considerable inspection work is involved, much of which is of a "follow on" nature to ensure that the advice offered and instructions given are implemented in practice. It is unusual for the inspectors' advice to be ignored; in fact, in larger works the remedial measures adopted frequently exceed the recommendations made by the inspectors. The staff is always tactful in its approach, and initial warning notices are issued where the plant is visited for the first time.

Prosecutions.—Prosecutions are resorted to only when it is considered that offenders have no logical excuse or technical ground to adduce for the recurring excessive smoke emission. It has been frequently stated that the policy of this Department is to remove the

cause of a nuisance rather than to obtain a recorded conviction. Accordingly, the proportion of prosecutions in relation to the total warnings given is small. During the year, only sixteen prosecutions were proceeded with, all in respect of first offences. These cases, which are of a technical nature, are heard in the Stipendiary Magistrate's Court. Of the total, three respondents were fined £1, twelve were fined £2, and one involved a second continuation outwith the yearly period covered by this report. The behaviour of the chimney concerned in this case is to be reported to the court at the next hearing.

Investigation of Complaints.—This work occupies a considerable part of the inspector's activities and again this year a number of recurring complaints were in evidence and the "chronic" offenders followed up. It is the experience that such recurring offenders do ultimately accept and act upon the advice given and effect a remedy, but at a later period the nuisance recurs and the cycle of warning, advice and tardiness begins again. The reason why prosecution is not immediately invoked in these cases is because the offending smoke emission is frequently not of a density to which exception is taken in the current legislation. Local nuisance is usually the result of small plant operation in built up areas. Larger chimneys, other than certain categories of process operations, seldom cause such immediate annoyance, but their smoke is an infringement of the general regulations and nuisance may be experienced at more remote distances from the premises. A number of these local nuisances cannot readily be remedied owing to the haphazard siting of the plant. The operation of "prior approval" would do much to prevent their recurrence and is a principle which should be supported by all authorities in future planning of industrial units.

Another factor which conduces to nuisance arising from small plants is the frequent lack of skill on the part of those attending to the boilers and furnaces. The lack of experience of such operators inevitably results in much irresponsible stoking. The continuance of the educational programme is the only possible method of combating this deficiency.

Shipping in the Harbour Areas.—The harbour and river areas are included in the normal routine control work and as the conditions obtaining in marine practice differ considerably from those in stationary plants the specialised skill of the inspectorate, who are all qualified marine engineers, is of particular value in dealing with the problems

that arise there. The skilled staffs of the ships are the controlling factor, and having regard to the number of ships and craft of all descriptions operating in the area it is surprising that the total volume of smoke emitted is not greater than it is. When excessive smoke does occur in river craft it is frequently of a "black" obnoxious variety and of long duration and its effects are experienced at surprising distances from the river. In many instances, the cause of the trouble, particularly in larger vessels at berth, is maladjustment of oil burning systems. Complaints are intimated to this Department by the police by telephone and, owing to the mobile nature of river traffic, must receive immediate attention.

Plant Improvements noted during 1950.—Certain of these improvements are noteworthy in extent and cost, while others are less ambitious, but all are important in their own sphere. The provision of complete new boiler installations with the necessary auxiliaries in place of smaller or obsolete plants, the redesigning and building of improved types of process furnaces and the erection of large chimneys come within the first category, while the mere heightening of existing chimneys, application of mechanical draught, installation of mechanical stokers, mechanical or other grit arrestors, economisers, etc., come within the second category. The extent and nature of such improvements can be very diverse.

The following is a summary of the plant improvements coming under the notice of the inspectorate in the various districts of the city during the year :—

New steam boilers installed to give increased power	...	18
Mechanical stokers fitted to steam and heating boilers and other furnaces	... ..	9
New chimneys erected or existing chimneys heightened	...	13
Boiler or process furnaces converted to gas or fuel oil	...	10
New mechanical grit and dust arrestors fitted	... ..	13
Other improvements not included under the above headings		17

The above figures apply to new work and not to repairs of existing plant, such as flues, settings, etc.

Examples.—(1) At the works of a large chemical combine situated in the south side of the city there has been installed a new steam plant consisting of a large Economic type dry back boiler and all auxiliaries

and instruments, equipped to burn fuel oil and operate under mechanical draught conditions. In addition, two large sectional type heating boilers, also under oil fuel, have been introduced. These replace a much smaller Lancashire type boiler which was the cause of recurring complaints of smoke emission as it was under the required load capacity and operated under chimney draught only. The new combined plant is practically smokeless.

(2) At a large public baths establishment on the south side a second water tube boiler has been raised bodily to increase the combustion space and make the burning of oil fuel possible. Considerable work and cost were involved, but the alteration has been fully justified, and conditions are now completely satisfactory. Previously these premises were the cause of widespread complaint in the neighbourhood.

(3) At a large glass-making works to the north of the city the issue of dust and grit from the main boiler chimney was the subject of frequent complaint. At the suggestion of this Department a high efficiency mechanical grit arrestor was installed between the boiler plant and chimney and a water spray system incorporated. Dust emission has now been reduced to a minimum and the nuisance abated.

(4) At a public baths in the east-end of the city, where heavy smoke emission was frequent and complaints numerous, extensive steam plant alterations were carried out. A dry-back Economic boiler was installed to replace a hand stoked Lancashire of smaller capacity. The new plant is fired with mechanical stoker and operates under induced mechanical draught. Conditions are now satisfactory.

(5) At the works of a long established aerated water making firm in the east-end an Economic dry-back steam boiler fitted with mechanical stoker has been installed to replace a smaller hand stoked Lancashire type. Heavy smoke emission had previously been of frequent occurrence owing to the forced load conditions, but the position is now very satisfactory.

(6) Reference was made last year to the improvement being effected by a large bottle-making works in the east-end of the city. This concern has now redesigned and rebuilt a very large glass melting furnace in which fuel oil is being used in place of coal. The scheme, which was a major operation, involved over £60,000 for one furnace,

the first of several to be rebuilt. Heavy smoke emission was of frequent occurrence, but the addition of the improved furnace to the line has reduced such emission very considerably. A further improvement is anticipated as the next conversion in the plant is being carried through during 1951.

Grit and Dust Emission.—This aspect of atmospheric pollution has been referred to at some length in the past two Annual Reports. This year complaints received indicated that nuisance from grit and dust tended to increase, particularly in the case of process furnaces. Greater draught pressures are now the rule in all types of furnaces, both boiler and process, as a result of the ever increasing temperatures required and also the high and constant load demands. These factors, combined with the greater proportion of smaller fuel being burned, have aggravated the position and in consequence, where suitable arresting plant is not installed the amount of dust and grit discharged into the atmosphere increases. Nuisance from this cause is particularly obnoxious and dangerous to health; hence complaints of this kind were closely followed up and persistent efforts made to secure reduction of the emission. Alterations to flues, adoption of mechanical arrestor fans, and the introduction of baffles, according to the nature of the operations, resulted in improvement or abatement of the nuisance. At the large east-end electrical power station further new and improved types of arrestors together with water seals were installed during the year. The grit problem has existed in the immediate area for a number of years and has been the subject of general complaint. Alterations to the uptake arrangements are being made year by year and conditions are gradually improving. As a means of reducing grit, the smaller multi-cell type of separator is in many cases superseding the large volumetric type. Electro-static separation is best, but the high cost prevents its installation in smaller plants.

Escape of Fumes and Gases.—Faults in plant design often account for the difficulties encountered in obtaining a low standard of fume and gas emission from chimneys. During the year there were fewer complaints of this nature than for some time. The complaints received involved various processes, such as proofing and lacquering, resin distillations, chemical fertilisers, coke ovens, metal refining and smelting and fish curing. All such complaints were the result of combustion or heat treatment. The methods adopted to remedy these nuisances included the provision of water sprays, bag filters, confining cowls, and alterations to condensing plants.

Mobile Pitch Melters in Streets.—Nuisance usually arises from these when they operate in close proximity to dwellings, shops or busy thoroughfares. During the year one such unit operating in a busy street was proceeded against after previous warning to exercise greater care in stoking had been disregarded. The usual faults are slightly leaking melters where the pitch gets into the fire space or where excessive stirring of the material gives rise to fumes. As the vehicles are close to the street level nuisance almost immediately occurs.

Central Heating Plants—Sectional Type Boilers.—Some hundreds of such plants operate within the city, most of them in the central area. These plants are designed to consume non-bituminous fuel such as anthracite or coke, by the use of which they produce their maximum efficiency and the smoke emission is minimal. In practice, when smoke emission is found to be heavy or prolonged it is usual to find that bituminous fuel is being used often coupled with lack of skill in stoking. Some plants are fitted with the underfeed type of automatic stoker and burn bituminous small fuels, a method which gives satisfactory results as such plants are usually thermostatically controlled. Where oil fuel firing is used the greatest care must be exercised to prevent maladjustment of the burners or faulty preheating of the oil, as this causes dense smoke emission. Such units must be under the supervision of a skilled attendant.

Soot and Atmospheric Precipitation Gauges.—These gauges were initially set up in 1914, and readings have been continuous since that date. Until 1935 a total of nine such gauges were employed, being sited in hospital grounds and public parks within the city. From time to time the sites were rearranged as experience dictated. In 1935 the number of city gauges was reduced to five, situated in the North, South, East, West and Central parts of the city, and in 1937 two additional country "check" stations were added, meantime situated at Mugdock Reservoir Estate and at Brenachoile on the N.E. shore of Loch Katrine. The City Analyst is responsible for the analysis, recording and interpretation of the results, while the Senior Smoke Inspector is responsible for the maintenance and collection from the stations. The work is done in conjunction with the Department of Scientific and Industrial Research. Glasgow Corporation was one of the first authorities to co-operate with the Department of Scientific and Industrial Research in this work of investigation into atmospheric pollution. The recordings are made monthly at each station, and the following table summarises the information for the past two years :—

DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR 1949-1950
(CITY GAUGES ONLY).

						Tons per square mile.	
						1950.	1949.
Insoluble matter—							
Tar	...	...	...	...	...	3.05	2.86
Carbonaceous other than tar	...	...	...	...	...	55.77	37.47
Ash	...	...	...	...	...	104.50	96.16
Total insoluble matter	...	...	...	...	...	161.33	136.49
Total soluble matter	...	...	...	...	...	82.92	109.23
Total solids	...	...	...	...	...	244.27	243.25
Rainfall in millimetres	...	...	...	...	...	957.00	966.00

Appended to this report is a table giving details of the average monthly deposit of each element of atmospheric pollution for the year and a comparison for the previous six years.

During 1950 the average weight in tons per square mile of solid deposit was 0.255 per millimetre of rainfall, while the corresponding figure for 1949 was 0.251. This shows an increase of 0.004 for the year. The total precipitation for 1950 amounted to 244.27 tons per square mile, while the figure for 1949 was 243.25, showing an increase of 1.02 tons. The average for the six yearly period 1944-1949 was 246.29 tons, indicating a reduction of 2.02 tons for the 1950 period in comparison with this six year average. The average monthly rainfall over the winter period (October to March) was 67.1 millimetres and the average deposit of total solids for the same period was 24.45 tons per square mile per month. The corresponding figures for the summer period (April-September) was 92.3 millimetres and 16.26 tons. The average total annual rainfall for 1950 as indicated by the gauges was 957 millimetres. The corresponding figure for 1949 was 966 millimetres. There has thus been a slightly lower rainfall, but an increase in precipitation of solids has been recorded although of small amount. Experience has shown that the incidence and nature of the rainfall may cause such an inverse result. Short "showery" periods of rainfall have a greater scavenging effect than protracted heavy downpour.

Course in Boilerhouse Practice, Smoke Abatement and Fuel Economy.—The 35th Annual Course commenced on the evening of 3rd October, 1950, and finished on 17th January, 1951. In all, 192 students joined the class, 118 as ordinary students and 74 as advanced

students. This large enrolment necessitated organising the class in two sections, and lectures were given to the ordinary class on Tuesday evening and to the advanced class on Wednesday evening. The attendance was good, averaging over 70 per cent. A total of 28 lectures was given, and in addition two further refresher lectures of 2½ hours each were delivered during April to the 25 candidates who had entered for the City and Guilds of London Institute Examination in Boilerhouse Practice.

The written class examinations were held during January, 1951, and it is satisfactory to report that of the 56 ordinary students 42 gained merit certificates as did all the 32 advanced students.

THOMAS M. ASHFORD

Senior Smoke Inspector.

AVERAGE DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR EACH MONTH OF 1950.

ENGLISH TONS PER SQUARE MILE.

Mean of 5 Stations	Month	Rainfall in millimetres	INSOLUBLE MATTER						Total Soluble Matter	Total Solids, 1950.	Included in Soluble		TOTAL SOLIDS						
			Tar	Carbonaceous less Tar	Ash	Total Insoluble Matter	Sulphate as SO ₄	Chlorine as Cl.			1949.	1948.	1947.	1946.	1945.	1944.			
January	64	.24	2.32	8.12	10.68	6.19	16.87	2.19	1.04	24.57	27.98	20.15	25.81	22.35	30.41			
February	102	.24	5.03	11.80	17.07	7.03	24.10	2.73	1.10	19.76	22.24	26.48	18.55	34.28	20.67			
March	55	.23	3.79	8.89	12.92	6.54	19.46	2.13	.60	20.58	26.99	22.58	22.89	23.16	17.86			
April	71	.21	3.10	8.00	11.32	5.73	17.05	2.64	1.53	19.98	20.99	28.47	14.88	18.88	23.09			
May	21	.22	1.87	7.22	9.31	2.23	11.54	1.04	.31	14.14	15.99	24.05	12.30	23.28	20.68			
June	51	.28	3.23	6.14	9.66	4.74	14.40	1.65	.43	12.95	17.58	18.63	17.72	19.94	21.83			
July	137	.10	3.05	7.01	10.16	6.25	16.41	2.23	.54	12.45	10.78	18.85	14.51	14.72	18.54			
August	120	.31	2.83	7.04	10.18	6.50	16.68	3.12	.52	17.20	17.14	No Rainfall	15.67	14.59	22.07			
September	154	.21	3.55	5.95	9.70	11.78	21.48	3.04	1.59	10.90	16.48	28.47	22.70	18.29	19.62			
October	88	.16	3.88	3.54	7.57	9.94	17.51	2.79	2.48	21.79	18.11	15.04	15.84	21.33	24.05			
November	50	.47	17.51	19.34	37.32	9.02	46.35	2.97	1.01	22.05	21.59	23.95	20.40	15.85	22.09			
December	44	.38	3.61	11.45	15.44	6.97	22.42	2.29	1.07	46.88	24.37	24.17	27.82	22.57	24.16			
Yearly Deposit in tons per square mile		957	3.05	55.77	104.50	161.33	82.92	244.27	28.82	12.22	243.25	240.24	250.84	229.09	249.24	265.07			
Monthly mean of all Gauges	79.7	.25	4.48	8.71	13.44	6.91	20.35	2.40	1.02	20.27	20.02	20.92	19.09	20.77	22.09			

SECTION XII.

GENERAL SANITARY OPERATIONS

CENTRAL DIVISION.

It is to be regretted that no scheme of slum clearance became possible during the year, and the housing problems facing the inspectorate remain much as before except in respect of the more rapid deterioration of tenemental property.

The report includes a short reference to the smallpox outbreak and further details of the extended survey of catering establishments referred to in last year's report. Reference to other aspects of administration is made and detailed figures are available in Table XVII of the Appendix.

Smallpox Outbreak.—Smallpox occurred in Glasgow during the month of April, originating in Knightswood Hospital which lies within the Divisional area. The work entailed in supervising the many contacts took precedence over all other routine duties, and every available man was detailed to smallpox duty. For a period of some three weeks only the most urgent of other matters could be dealt with and many of the inspectors were employed for very long spells of duty.

Nuisances.—The volume of work under this head has tended to remain relatively stationary and will probably continue to do so while housing conditions remain as at present. The figures of 80,837 visits and 6,946 nuisances remedied show little change from last year's returns. As usual choked or defective drains and sanitary fittings and dampness or disrepair headed the list of nuisance conditions dealt with. A significant and disturbing fact was that during the year it was found necessary on 48 occasions to seek the authority of the Committee for the issue of statutory notices under Section 20 of the 1897 Act as compared with 12 during the previous year. Coupled with the fact that court proceedings were found necessary in respect of three nuisance conditions, the conclusion is unavoidable that many property owners are reluctant or unable to undertake repairs which involve heavy costs. This is found to be especially true of roof repairs.

In the three court cases mentioned above, decree was given for the work to be done—in one case by the Corporation—and the decrees were all complied with. The case mentioned in last year's report, in which the respondent was given until March, 1950, to do the work, was also successfully completed. The instance where the Corporation were decreed to do the work and recover the cost was of a rather unusual nature. Complaint was made by the occupier of a basement flat in a large terrace house of dampness and flooding of the apartments. This was established and the owner notified to remedy matters. The owner had purchased the house through a building society and let it out in rooms to separate families. After lengthy negotiations the owner's tradesman at last proceeded to deal with the nuisance, but on opening up the ground discovered that the entire main drainage system was defective. He refused to carry on until given a guarantee by the owner that his bill would be met. This not being forthcoming, work stopped and court proceedings became necessary. Decree was given for the Corporation to do the work and recover the cost. The main drain was entirely renewed by the Housing Department and a new concrete floor provided at a total cost of £218. The prospect of recovering this sum is very remote as the City Chamberlain has prior claim to the rentals paid by the tenants in order to recover arrears of rates due by the owner. The building society has also a prior claim as bondholders.

Rodent Control.—In March the Corporation's decision to take over the work of rodent control, consequent upon the almost complete abandonment of this work by the Department of Agriculture, was implemented. Suitable personnel were recruited and equipment purchased. It was fortunate that trained operatives were available for recruitment owing to their release from the Department of Agriculture's staff. This enabled operations to start right away under the new regime, and the new unit is now functioning smoothly. Unfortunately, several of the best operatives left for better posts during the year, and some difficulty was experienced in obtaining suitable replacements.

As regards rodent control in the Division, the tempo of the past three years was well maintained. The demand for the services of the unit was so keen that at times the time-lag between confirmation of an infestation and its treatment became unduly protracted. It became obvious during the year that the large kills obtained in previous years

in food stores and restaurants were not recurring, and credit for this must be given to the policy of insistence on rat-proofing after clearance of such premises. A great deal has been done on these lines and the results are now becoming apparent. The kills now being obtained are the product of greater numbers of lighter and more scattered infestations. Only three premises yielded numbers deserving of special mention, namely, a skin and metal store (422), a general warehouse (339), and a restaurant (318). The two last mentioned are undergoing extensive rat-proofing; the store is not capable of being proofed and periodic trapping is carried on here.

The result of the year's work is given in tabular form, as follows :—

No. of premises treated—				Types of premises treated—	
By trapping	...	...	457	Food shops and stores	61
By poison and gassing	...	...	87	Restaurants	32
			544	Factories	48
Premises treated free of charge			93	Dwelling-houses	94
Rodents killed—				Disused cellars and wash-	
Rats	...	...	4,129	houses	93
Mice	...	...	1,298	Other shops and mis-	
			5,427	cellaneous	216
					544

Factories Act, 1937.—A case of unusual interest in connection with the enforcement of this Act arose during the year. A city restaurateur set up a "basement bakehouse" in his premises despite verbal and written warning to himself and his legal agents that to do so would constitute a breach of Section 54 of the Act. After repeated attempts to induce him to comply with the law had failed, proceedings were instituted in the Sheriff Court. The case was continued by the Sheriff on three occasions to permit the respondent to comply with a court order to bring his premises into conformity with the Act. He did not avail himself of these opportunities and was eventually fined the maximum penalty of £20 plus a further £15, being a daily penalty of £5 incurred over three days. These penalties have had no deterrent effect for the restaurateur has continued his activities and further court proceedings are pending. Apart from this case the administration of the Act followed normal lines. During the year, 298 intimations of infringements of the Act were served on occupiers or owners of factories which were generally complied with. Appreciative mention might be made here of the co-operation afforded in the administration of this Act by the factory inspectorate of the Ministry of Labour and National Service. Their advice and assistance were always readily available. This co-operation is of great mutual advantage.

Catering Establishments.—The survey of catering establishments referred to in last year's report as being under way was completed during the year. The result largely confirmed the findings of the pilot survey carried out in the previous year. A total of 223 establishments of all types was inspected. The survey was confined to the kitchens and ancillary apartments; public rooms were not included as the main object was to ascertain the standard of hygienic food handling, storage and preparation prevailing. As in the first survey, those restaurants run in conjunction with large warehouses were best in almost every respect. The standard in some is very high indeed.

The following table shows the main findings of the survey.

Type of Premises.	No. Surveyed.	Kitchen under-ground	Structure.			Crocery and Utensils.			Staff Washing Facilities.	
			Good	Fair	Bad	Mechanical Washing	Self Dried	Hand Dried	Adequate	Well placed
City Restaurants	107	41	42	50	15	27	23	84	107	98
Warehouse Restaurants	19	2	14	5	—	11	10	9	19	18
Hotels	40	22	24	16	—	5	5	35	40	34
Working Class Restaurants	33	6	4	26	3	—	—	33	33	19
Tea Rooms	11	4	1	9	1	—	—	11	11	9
Miscellaneous	13	7	12	1	—	—	—	13	13	13
	223	82	97	107	19	43	38	185		

The chief impressions gained during the survey, many of which cannot be reduced to figures, may be summarised as follows :—

- (1) That the volume of business in a number of establishments has outgrown the original capacity of the kitchen, leading to overcrowding of cooking apparatus, washing-up sinks, etc. This tends to unhealthy working conditions and difficulty in maintaining proper standards of cleanliness.
- (2) That too many large establishments still depend on hand washing and drying of dishes and cutlery, and that the temperature of the water used is in many cases too low.
- (3) That in many establishments it seems to be no one's special responsibility to maintain proper hygienic standards.
- (4) That very little evidence was forthcoming of any attempt by management to inculcate good hygienic habits in their staffs. Very few of the posters and notices issued by the Tourist Board in this connection were found posted up.

- (5) That in what, for want of a better name, have been classed as working-class restaurants, conditions are generally very poor in respect of suitability of premises and hygienic standards. In 27 per cent. of such places no hot water was laid on to the washing-up sink.

The general conclusion to be drawn is that legislation for the registration and control of all catering establishments is overdue and until such comes into force no great progress in raising hygienic standards is to be anticipated.

Common Lodging-Houses.—There was no change in the number of these during the year. All were regularly inspected and nothing deserving of special comment arose. Any infractions of the bye-laws were of a minor nature and remedied after verbal warning.

Farmed-out Houses.—The number on the register was reduced during the year by the demolition of 23/29 Dean Street as a dangerous building. This leaves a total of 78 such houses registered, comprising 52 of one apartment and 26 of two apartments. All are situated in the extreme eastern end of the division, and some in the near future should be overtaken by slum clearance or Dean of Guild action. During and since the war it has proved impossible to insist upon the full standard of furnishings and accessories laid down in the bye-laws owing to both scarcity and high costs.

Drainage.—The building operations in the Yoker Mill area demanded an increased number of inspections of drains and plumber-work and the application of the smoke test. As new housing construction expands this aspect of the drainage inspectors' duties will tend to increase.

Piggeries.—One piggery on the western perimeter of the division and situated on farm land owned by the Housing Department was closed down during the year preparatory to house-building operations. It had accommodation for 453 pigs. This leaves six piggeries on the register with accommodation for 1,353 pigs. All were regularly inspected during the year and only minor irregularities discovered. These establishments are also surveyed regularly by the Rodent Control Section and dealt with as necessary.

Common Closes and Staircases (Limewashing, etc.).—This very necessary branch of the work was kept well up to standard during the year. Seven hundred and eight notices to cleanse, limewash or paint were issued. One thousand and seventy-five properties were noted as having been so treated including 455 where the work was done voluntarily by the owner.

Housing.—Action was taken under the Housing Acts against one tenement and a Demolition Order secured. Nine tenements were condemned during the year by the Dean of Guild, but from only three of these have the tenants been rehoused. Two tenements in Montrose Street were demolished to make way for the extension of the Royal Technical College. The tenants were found other accommodation by the College authorities. The following table shows the details of the houses dealt with by these various agencies :—

Address.	How dealt with	No. and Size of Houses.				Total	Remarks.
		1 apt.	2 apt.	3 apt.	4 apt.		
26 N. Portland St. ...	Housing Act, 1930	16	8	—	—	24	Demolished.
117 Cheapside St. ...	Dean of Guild ...	—	8	—	—	8	Awaiting demolition.
22/24 Balmano St. ...	Do. ...	2	11	4	—	17	Demolished.
23/29 Dean St. ...	Do. ...	19	4	3	—	26	Partly demolished.
2 Catherine Pl. ...	Do. ...	—	15	1	—	16	Awaiting rehousing.
13 Lugton St. ...	Do. ...	18	1	—	—	19	Do.
21 Balmano St. ...	Do. ...	—	8	—	—	8	Do.
11 Tarbet St. ...	Do. ...	—	4	3	1	8	Do.
13 Tarbet St. ...	Do. ...	—	8	1	1	10	Do.
15 Tarbet St. ...	Do. ...	17	6	—	—	23	Do.
77 Montrose St. ...	Technical College Extension.	—	—	6	1	7	Demolished.
87 Montrose St. ...	Do.	—	1	3	—	4	Do.
		72	74	21	3	170	

The case of the property 23/29 Dean Street merits some mention. These were farmed-out houses and very few of the occupants were rehoused by the City Factor's Department. About 19 families were still in occupation when demolition commenced. They refused to move and demolition was perforce suspended. These people are still living there in utterly deplorable conditions. In their own interests the attention of the Procurator-Fiscal was drawn to the matter and a suggestion made that ejectment proceedings should be taken. He stated that an ejectment warrant had been granted but had not been

enforced by the Dean of Guild officials concerned. There the matter rests and meantime, apart from the wretched conditions under which these people are living, there remains the constant danger to life and limb arising from the deteriorating structure.

Further light on the position regarding dwelling-house property is cast by the offer to the Corporation during the year of 18 tenements. All these offers were rejected, and two of the tenements have since been abandoned and have required to be kept wind- and water-tight at the cost of the department. Eight properties in all have required to be maintained at a minimum standard during the year in the interests of health at a total cost of approximately £126.

Rent Restrictions Acts.—Applications for certificates of disrepair under these Acts numbered 56, of which 22 were granted and 34 refused. One application for a "report" that repairs had been completed was lodged by an owner and granted. Reference must again be made to the practice of some tenants' associations of sponsoring block applications from a certain property. Many of these relate to disrepair of such a trifling nature that no straining of the term "not in reasonable repair," contained in the Acts, could cover it. This it is which leads to the high proportion of refusals.

Supervision of Rehousing Schemes and Cleanliness—Inspection in Schools.—This very necessary work was carried out by the nurse-inspectresses during the year as usual, with no outstanding features calling for comment.

Sanitary Conveniences used in Common.—Some slight changes occurred in these totals owing to demolition of properties. The figures at the end of the year are as follows :—

Water-closets used in common—						
Serving	2	tenants	...	1,023	decreased by	6
"	3	"	...	1,259	"	13
"	4	"	...	631	"	4
"	5+	"	...	219	"	8
Total				3,132	"	31
Dry Closets and Privy Middens				18		
Ashpits	...	...	...	43	decrease of	2
Houses with no internal water supply				42	"	2

GEORGE D. LAUDER,
Divisional Sanitary Inspector.

NORTHERN DIVISION.

The area of the Division extends to 8,172 acres with an estimated population of 252,569 persons, giving an average density of 30·9 persons per acre.

The 15th (Woodside) Ward has the highest density with 177 persons per acre and the 18th (Maryhill) Ward at the other end of the scale with 12 persons per acre.

These figures reveal a reduction in the population of 2,628 persons spread fairly evenly over each Ward with the exception of 9th (Springburn) Ward where there has been an increase from 27,959 persons in 1949 to 28,687 in 1950. This can be accounted for by a migration of people to new houses in the Balornock and Robroyston Scheme.

There is a nett increase of 550 dwelling houses, 798 built in the various housing schemes, 2 by subdivision of a large dwelling, and 8 by rehabilitation of bomb damaged houses, less 258 houses demolished or closed by Dean of Guild Court order or by operations of Housing Acts.

The following table shows distribution and size of houses in each ward in the Division :—

Ward.	Total Number of Houses in Northern Division at 31st December, 1950.						At 31st December, 1949.
	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.+	Total.	Total.
8	1,451	4,739	1,726	244	34	8,194	8,283
9	635	2,290	2,145	2,206	327	7,603	6,984
10	1,438	5,244	2,387	633	127	9,829	9,888
14	1,477	4,554	1,406	175	59	7,671	7,728
15	1,905	4,408	1,206	399	291	8,209	8,311
16	574	2,731	5,131	1,840	227	10,503	10,227
17	1,341	4,082	1,910	549	586	8,468	8,478
18	650	3,372	2,198	580	200	7,000	7,021
Total	9,471	31,420	18,109	6,626	1,851	67,477	66,920

The population is largely working-class in content, the majority finding employment in the 1,121 factories and workplaces situated within the Division.

The importance of strict attention to the control of infectious disease and to the quick removal of nuisance in an area so densely populated need not be emphasized.

During the year 152,193 visits were made in the course of investigating infectious disease and nuisances and for the enforcement of the various Statutes designed to ensure that environmental conditions are maintained at a high level.

Some 3,330 complaints, made by letter or verbally, on a wide variety of subjects, were investigated and reported on by the staff and appropriate action taken where necessary. These included complaints by tenants dissatisfied with their housing conditions, with house factors refusing to deal with disrepair, or with their neighbours for failing to cleanse common passages and stairs. On 279 occasions complaints were concerned with insect infestation, including bugs, cockroaches, flies, snails, fleas and lice, also with the keeping of pigeons and hens.

The most dramatic event during the year was undoubtedly the suddenness with which the Department was confronted with an outbreak of smallpox in the City. While the epidemiology of the outbreak is dealt with elsewhere, it is necessary that some comment as to how it affected the Division be made here.

Within 24 hours of the outbreak becoming known to the Department the entire staff was involved in the tracing and the surveillance of contacts, all other work except the most urgent being dropped. Besides surveillance of contacts associated with the hospital where the first case occurred, three cases directly associated with three households in the Division had to be dealt with. This involved the carrying out of some 1,673 "on the spot" vaccinations and the terminal disinfection of the three households. The extent to which terminal disinfection should be carried out gave considerable thought. It was decided that all household linen, clothing, including boots or shoes, and soft furnishings, including carpets, should be removed to the disinfecting station and the apartments which the patients had been using in the days preceding the onset of symptoms of the disease sprayed with a 20 per cent. solution of formaldehyde.

This work entailed a considerable part of the inspectors' time and in two of the cases involved several journeys by the van removing the household goods to the disinfecting station. After the event one is left in doubt if such an extensive disinfection, with the consequent upset to the household and damage to articles, is necessary.

Consideration should be given to this problem and if possible a code of action evolved for guidance as to the extent of disinfection in the different circumstances that may be met with.

During the outbreak which extended over a period of 28 days, 650 contacts involving 505 households in the Division were under surveillance and 3,911 day and 1,041 night visits made by the staff.

Progress was made with the Housing Survey being carried out in the Division. In the period under review 1,689 properties were visited and details of the condition of 12,306 houses noted in the cards specially prepared for the purpose. On completion of the survey in the 8th (Cowlairs) Ward and 14th (Cowcaddens) Ward an analysis of the properties and of the existing overcrowding was made. Details of this are referred to elsewhere in this report.

To comment year after year on the unsatisfactory housing conditions in the Division seems like "flogging a dead horse," especially when it is realised that, so far as circumstances permit, the maximum effort is being made to produce new houses. Nevertheless, housing remains one of the major problems in the environmental and social fields to-day.

According to the accepted standards of accommodation for each family, gross overcrowding continues in many homes, this being aggravated by the necessity for married sons and daughters having to reside with their parents.

The derelict and worn-out slum property is being patched up to keep it reasonably habitable and many properties considered unsafe still house the tenants because of the lack of alternative accommodation.

While the completion of 3,307 houses since 1945 in the various housing developments within the Division has improved the housing standards of many families who were overcrowded, practically no impression has been made on the problem of slum clearance. The opportunity to deal with the unfit house on a scale that would materially benefit the well-being of the community seems no nearer than it was in 1945.

Concern at the increasing incidence of intestinal infections and food poisoning throughout the country has directed attention to the need for a higher standard of hygiene in the handling of food. With this in mind a survey of the catering establishments situated in the Division was carried out during the latter half of the year. Of the 106 premises visited, 39 were found satisfactory in most respects; the others were found to be deficient in some of the more important aspects of hygiene. Details of the survey are given elsewhere in this report.

PUBLIC HEALTH (SCOTLAND) ACT, 1897.

Nuisances.—Reference to Table XVII reveals the importance of systematic inspection of districts for the detection of nuisance. Many of the conditions dealt with would probably persist for a considerable period if not brought to the notice of those responsible. It will be noted that choked drains and defective sanitary fittings account for over one-third of the total dealt with.

During 1950, 73,871 visits were made for the specific purpose of investigating nuisances and 12,989 were discovered. At the end of the year 12,447 had been removed.

It was found necessary to issue ten statutory notices in terms of Section 20 of the Act for the abatement of nuisances. Fortunately this was sufficient and resort to court action was found to be unnecessary.

Complaint of nuisance arising from industrial processes was made on three occasions. On bringing these to the notice of the managements of the firms concerned ready co-operation was forthcoming and the worst features of the nuisance abated. These arose from noise, the emission of dust and of smells. Before the nuisances could be effectively dealt with a considerable amount of time and money had to be expended.

Fly Nuisance.—Following the policy of former years an early start was made to gain a measure of control over the fly menace.

All stables in the Division were visited and the owners requested to have all manure removed at weekly intervals or oftener if convenient.

Dung-pits, along with all ashbin shelters, in the more densely populated areas in the Division were treated with whitewash to which had been added D.D.T. emulsion.

In addition retail shops where the commodities sold were likely to attract flies were visited and fly control measures discussed and advice given on the application of D.D.T. preparations.

It is difficult to assess the efficacy of these measures but there can be no doubt that it had beneficial effects on the community.

During the campaign the following premises were visited :—

Grocers and Provision Shops	...	...	...	311
Butchers	...	...	...	155
Fishmongers	...	...	...	69
Bakers	...	...	...	117
Fruiterers	...	...	...	128
Restaurants	...	...	...	12
Fish Restaurants	...	...	...	128

Offensive Trades.—Five offensive trades are conducted in the Division, viz. :—

Skin and Hide Factors.
 Soap Boilers
 Tanners.
 Horse Slaughterer.
 Knacker.

An application made in terms of Section 32 of the Public Health (Scotland) Act, 1897, was submitted by Messrs. James Thomson & Sons, Skinners and Hide Factors, 134 and 134A Drygate, to extend their premises at Drygate. After the formal procedure required in terms of the Act had been followed, sanction by the appropriate Committee of the Local Authority was granted. There were no objections to the application.

Conditions at the knackery situated in Pinkston Road gave some cause for concern. There had developed a practice of retaining on the premises carcases, etc., until it was convenient to remove the material for processing elsewhere. As this was contrary to the Bye-laws controlling the conduct of these premises objection was taken to the practice and although the operator of the premises was reluctant to adhere to the requirements of the Bye-laws when the consequences of failure to do so were pointed out no further trouble was experienced. It was also necessary to request the operator to relay the floor of the killing shed and to overhaul the drainage.

During the year the services of the Department's Disinfestation Unit were used to deal with fly infestations.

Ninety-one visits were made to the various offensive trades during the year and any defect or fault found was readily dealt with.

Piggeries.—There are 17 piggeries with accommodation for 3,332 pigs licensed in the Division. These were visited on 90 occasions and found to be conducted in a manner which gave no cause for complaint.

Common Lodging Houses.—There are five lodging houses registered within the Division, giving accommodation for 1,584 persons.

While the houses are being conducted satisfactorily in terms of the Bye-laws compared with modern housing standards they leave much to be desired. Some of the buildings were never intended to be used for lodging houses consisting as they do of large flats sub-divided into numerous cubicles, the majority of which are grouped together in a central position away from external walls, therefore away from direct light and ventilation. The cubicles which are formed of wood partitions frequently harbour bugs. They are of a size that permits of only a bunk and a narrow space with just sufficient room to allow the removal of one's clothing.

While sanitary conveniences are provided in a fixed ratio, one w.c. for every 20 persons, and one wash-hand basin for every 20 persons, these are not necessarily distributed to the best advantage of the inmates. Facilities for bathing are of the minimum and one suspects that their use is not encouraged.

Consideration of the minimum requirements for lodging houses is overdue and should be undertaken in the near future.

In the course of the year it was found necessary to bring to the notice of the keepers some conditions that required immediate attention, including the treatment of two houses for bug infestation. At a request of the keepers this was carried out by the Disinfestation Unit attached to the Department. D.D.T. emulsion was used and was effective in clearing up the houses. After a period of time had elapsed to allow the residual D.D.T. to have effect on newly hatched eggs, the managements were requested to have the houses redecorated. At the close of the year the redecoration of one of the houses had been completed with benefit to all concerned.

Tents, Vans and Sheds.—Sanction of the Local Authority has now been granted to seven owners of land, permitting them to let it for occupation by movable structures used for human habitation. There are two additional sites set apart for this purpose within the Division.

In considering applications of this kind, care is always taken to ensure that the sanitary arrangements are sufficient to meet the needs of those occupying the ground and that its use will not affect the amenities of the surrounding areas.

Permanent buildings containing water-closet facilities have been provided at the new sites and suitable arrangements made for the collection of domestic refuse.

The sites in use were visited on 46 occasions and the sanitary conditions were found satisfactory.

GLASGOW POLICE ACTS.

Cleansing of Common Passages and Stairs.—The enforcement of the bye-laws relative to the above absorbs a considerable part of the staff's time. In the course of the year 3,562 visits were made, 5,432 rotation cards issued and 1,426 verbal warnings given.

It was found necessary to institute court proceedings on nine occasions.

The need for intervening on account of householders neglecting an elementary duty such as the cleansing of a close or stair which they require to use on every occasion they leave their homes reflects discredit on their standard of hygiene.

Limewashing and Cleansing of Walls, etc., of Closes and Staircases.—The enforcement of the law for the cleansing of walls, etc., of common passages and staircases is not only important from a hygienic point but for maintaining the amenity of a property. It is a "morale booster" to many of the residents in some of the more unsatisfactory properties and encourages the housewives to put up with some of the deficiencies in their homes.

During 1950, 12,155 visits were made to properties, 1,267 notices issued and 1,473 properties cleansed including 467 done voluntarily by their owners.

Dirty Houses and Bedding.—It was found necessary to deal with 291 householders who had allowed their houses or bedding to become dirty.

Many of these came to our notice when the children attending school were found to be verminous. The figure represents 0·43 per cent. of the households in the Division and reflects favourably on the standard of hygiene obtaining in the community.

As recorded last year a number of old people living alone and not fit to attend to their household duties were dealt with. Where possible

the houses and bedding were cleansed by the Department and domestic helps provided for at least part of each day to maintain reasonable conditions. Arrangements were made for a number to go into hospital or into a suitable home where they would obtain care and attention.

Drainage.—The demand for inspection and the smoke-testing of drainage on completion of building operations continues to be high. This is accounted for by the rapid development of Milton and Barmulloch Housing Schemes, and to some extent by the increased amount of private building.

Nine hundred and sixty-nine smoke-tests were applied and 3,331 visits made to inspect work while in progress.

It is necessary to place on record disapproval of the faulty design of the plumbing work being carried out in some of the housing schemes. Representations to those responsible have been of no avail. Nuisance will undoubtedly occur from some of this work although it might not be apparent to the uninitiated.

Water Supplies.—The new East Main supplying the Eastern and South-Eastern Area of the City was brought into operation during the year. As was anticipated this relieved the service mains supplying the Northern Area of the City and in consequence no complaints of shortage of water were received as was the case in former years. It did, however, give rise to a number of complaints of taste in the water. This was due to the fairly high residuum of chlorine present, a precautionary measure necessary when bringing new service mains into use. All complaints were investigated and when the cause was determined an assurance was given to the complainants that the water was safe for consumption.

During the year 460 specimens of water obtained at Milngavie Service Reservoirs were submitted to the City Bacteriologist for analysis. The water entering the service mains was found to be consistently pure and of high quality.

Routine inspection of cisterns for the storage of water for dietetic purposes was carried out. Six hundred and twenty-two cisterns were cleansed by the owners on receipt of notices issued in terms of the Police Acts.

RAT DESTRUCTION OPERATION UNDERTAKEN DURING 1950.

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Type of Premises.	No. Visited.	No. of Premises found infested.	Degree of Infestation. Light. Heavy.	Rats Destroyed.	Hours chargeable to Owner Occupier.	Cost to Owner or Occupier. £ s. d.	No. of Visits made <i>re</i> proofing and trapping.	Premises proofed.
Dwelling-houses and basement cellars	2,283	241	228 13	1,538	1,324	331 5 0	2,091	158
Offices and Institutions	...	103	5 5	234	189	47 5 0	86	9
Food Factories	...	150	11 4	369	118	32 0 0	96	15
Food Shops	...	289	27 3	289	140½	53 12 6	221	28
General Factories	...	271	22 7	1,719	184	16 0 0	203	16
General Shops	...	370	34 2	278	179½	14 17 6	262	34
Restaurants	...	57	5 5	35	57	14 5 0	43	5
Farms, Stables, Piggeries, etc.	...	167	6 12	917	304	76 0 0	116	—
Offensive Trades	...	6	—	216	50	12 10 0	30	—
Coups	...	22	1 11	2,035	295	73 15 0	74	—
Sewers	...	2	—	1,460	74	18 10 0	250	—
		areas.						
Totals	...	3,720	339 61	9,090	2,915	750 0 0	3,472	265

Prevention of Damage by Pests Act, 1949.—Operations for the destruction of rats and mice received new impetus with the coming into force of the Prevention of Damage by Pests Act, 1949.

The Act became operable on 31st March, 1950, and is specific in its aim. It places squarely on the shoulders of local authorities and on owners and occupiers of lands, buildings, etc., the duty of detecting and destroying rats and mice whenever the occasion arises. It is made obligatory on the occupier of land to give notice to the Local Authority if it comes to his knowledge that rats and mice are infesting his land in substantial numbers.

No difficulties have as yet arisen in the enforcement of the Act.

In the course of the year, 3,720 primary visits were made to premises and 400 were found infested in varying degree. The supervision of destruction operations and rat proofing of premises required a further 3,472 visits. Over 9,000 rats were accounted for.

The table on the previous page gives details of the premises visited and the result of the operations

FACTORIES ACT, 1937.

The responsibilities of the Local Authority in factories, so far as hygiene and amenities are concerned, are dependent on whether mechanical power is in use or not. In factories where power is in use, the responsibility is confined to the suitability and sufficiency of the sanitary accommodation. In non-power factories, the Local Authority has greater powers and is responsible for supervision of cleanliness, temperature, ventilation, drainage and overcrowding, in addition to sanitary accommodation.

Since the 1937 Act came into force there has been a steady improvement in the standard of hygiene in factories, especially in the larger factories. This was markedly noticeable during the war years and it is gratifying to record that the improvement is continuing. Greater care is taken of sanitary conveniences by employees and less destruction of fittings is found in the course of inspection.

Factories on the register at December, 1950, numbered 737. This shows a considerable reduction from the previous year and is accounted for by the fact that a large number of premises were deleted from the register because they did not come within the definition of factory, as defined in the Act. These included a large number of premises used as stores, fish restaurants and butchers shops.

A comparison of the register kept by the Inspector of Factories with that in the Division early in the year revealed a considerable discrepancy. Both registers have been overhauled and should now be comparable.

Factories on the register include :—

Mechanical	...	...	...	...	618
Non-mechanical	...	...	...	...	35
Mechanical Bakehouses	...	...	...	...	51
Non-mechanical Bakehouses	...	...	...	...	33

In addition, 27 homeworkers and 384 workplaces are listed. Periodic visits were made to determine whether satisfactory conditions were being maintained.

During the year under review, 2,684 inspections were carried out and 245 defects remedied.

Catering Establishments.—A survey of catering establishments including public restaurants, works canteens, hotels and hostels, was undertaken to assess the suitability of the premises and the standard of hygiene obtained in the preparation and handling of food. The survey covered 37 public restaurants, 62 works canteens and 7 hotels or hostels, and points noted include :—

Structure	...	...	...	Floors, walls, ceilings, ventilation and lighting.
Space	...	...	...	Arrangement of premises with regard to storage ; preparation of commodities ; and subsequent cleansing of equipment.
Facilities	...	...	...	Equipment used in the course of preparation of food ; adequacy of sinks and hot and cold water supplies ; refrigerator for storage of prepared food.
Sanitary Conveniences	...	...	...	Adequacy and suitability of w.c. accommodation for staff ; washing facilities including soap, towel and nail brush ; cloakroom accommodation.
Disposal of Refuse	...	...	...	Adequacy and position of bins.

A little over one third of the premises visited—39 out of 106—were found to be completely satisfactory in all respects. The majority of the others had some minor defect such as faulty structure ; bad arrangement of the premises (i.e., combined preparation room and kitchen) ; no refrigerator ; and no cloakroom facilities.

There was an obvious endeavour on the part of most managements to obtain a high standard of hygiene, but a lack of awareness in some essential factors was apparent. The most noticeable was the casual manner in which crockery and equipment were washed. In many instances this was carried out in static, lukewarm water without secondary rinse.

The most alarming feature found was the complacency shown when a member of the staff stayed from work on account of illness. There appeared to be no attempt to find out the reason for absence or whether the nature of illness was an infectious one with diarrhoeal symptoms. More than half the premises visited did not keep a register of illness.

There was a ready response on the part of those responsible for the conduct of premises to co-operate with the Department when defects or faults were brought to their notice.

Of the unsatisfactory conditions listed in the following table, all, with the exception of those involving structural alterations, had been dealt with at the time of writing.

SURVEY OF CATERING ESTABLISHMENTS.

	Public Restaurants.	Hotels and Hostels.	Works Canteens.
No. of Premises visited	37	7	62
No. found Satisfactory	14	4	21
No. found Unsatisfactory due to—			
Bad structure	11	—	—
No separate storage accommoda- tion	2	1	8
Combined kitchen and prepara- tion room	13	2	18
Disrepair of floors	2	—	2
Disrepair of walls	3	1	1
Disrepair of ceilings	2	—	2
Insufficient ventilation	5	—	4
Insufficient light	3	—	—
Dirty floors	5	—	11
Dirty walls	7	1	20
Dirty ceilings	7	1	21
Dirty equipment	6	—	7
Dirty utensils	2	—	6
Dirty fixtures	4	—	5
Inadequate washing facilities ...	6	—	3
No running supply of hot water	8	—	—
Insufficient temperature of hot water	1	—	2
No refrigerator available ...	11	4	14
Inadequate sanitary conveniences	3	—	1
Sanitary convenience without towel	8	2	10
Sanitary convenience without soap	9	2	8
No cloakroom facilities for staff	14	2	15
No supply of overalls to staff ...	10	—	12
No register of illness kept ...	21	4	35
Unsatisfactory refuse bins or removal of refuse	3	1	9
Infestation by vermin	—	—	2

HOUSING (SCOTLAND) ACTS, 1925-1949.

As mentioned earlier in this report, there was a nett increase of 550 houses in the Division, 798 houses completed in the various housing schemes in course of development, eight houses rehabilitated after war damage and two by the sub-division of a large house—a total of 808 new houses, less 258 houses demolished or closed for various reasons.

Since 1945, 2,894 permanent and 413 temporary houses have been erected in the Division.

Because of the difficulty of providing alternative accommodation for displaced families, only 38 houses were represented to the Local Authority as unfit for human habitation, in terms of Section 16 of the Housing (Scotland) Act, 1930, while the Master of Works reported to the Dean of Guild Court 15 properties, containing 204 houses, as being unsafe, when demolition was ordered. By the end of 1950, 17 properties, comprising 258 houses, had been actually closed or demolished and the families settled in new houses. This includes properties represented in 1949.

HOUSES DEMOLISHED OR CLOSED DURING 1950.

	Demolished.	Closed.	Demolition or Closure Pending— Awaiting Rehousing of Tenants.	Total.
Represented under Housing Acts,				
1950	1	3	38	42
Previous Years	—	—	—	—
Reported by Master of Works to the Dean of Guild Court—				
1950	65	—	144	209
Previous Years	189	—	49	238
	<u>255</u>	<u>3</u>	<u>231</u>	<u>489</u>

During the year a further 40 properties, containing 594 houses were offered by their owners to the Local Authority. Of these, two were accepted; negotiations for the acquisition of ground burdens, etc., were entered into in 16 instances; and 22 properties were refused.

Since 1945, the Corporation have acquired in the Division 22 properties, containing 264 houses, the majority coming into their possession without purchase. If these properties had not been acquired they would have rapidly fallen into decay, thus increasing further the serious housing problem confronting the community.

There was no increase in the number of properties abandoned by the owners. The eight properties within this category cost the Department £73 8s. 9d. to keep them free of nuisance.

Decrowding operations under the Housing (Scotland) Act, 1935, resulted in 931 families obtaining larger houses and involved the transfer of $4,565\frac{1}{2}$ units or 5,192 persons. Subsequent visits to the decrowded houses revealed that 816 or 87·65 per cent. were no longer overcrowded; in 75 or 8·05 per cent. overcrowding was reduced; in 19 or 2·04 per cent. overcrowding was unchanged; and in 21 or 2·26 per cent. it had increased.

The families decrowded were taken from the list of applications in the hands of the City Factor and were accommodated in new houses and in relets in the many housing schemes that ring the city.

Since the Act came into operation in 1935, 9,271 families in the Division have been accommodated in Corporation houses suitable for their needs.

Inspection of District Regulations.—As reported in 1949, a survey of the residential property in the Division is being systematically carried out. During the year a further 1,689 properties, containing 12,306 houses were surveyed and details were entered on a record card prepared for the purpose. The object of the survey is to ascertain the precise condition of every property and house and to classify them according to specific standards. The opportunity is also being taken to estimate the degree of overcrowding for comparison with that found existing during a survey carried out in 1935. Since the survey started in 1948, particulars of 3,448 properties with 29,381 houses have been recorded. This equals 43·5 per cent. of the dwellings in the Division.

A detailed analysis of the standards of housing and of the degree of overcrowding in the 10th (Townhead) Ward was given in the report for 1949. Details of a similar analysis on completion of the survey of the 8th (Cowlairs) Ward and 14th (Cowcaddens) Ward are submitted in this report, using as a basis those standards given on pages 200 and 201 in the Medical Officer's Report for the year 1949.

The 8th (Cowlairs) Ward extends to 645 acres with a population including institutions of 29,201 persons (survey census), giving densities of 45·3 persons per acre and 13 houses per acre. The ward is principally residential in character, with a belt of heavy and light industry on either side of the main railway into Buchanan Street Goods and Passenger Station, which divides the ward into two unequal parts.

For the purpose of the analysis, the ward has been divided into the two parts formed by the railway—Areas I and II. Area I represents that part of the ward south of the railway and, until the change in the ward boundaries in 1948, was included in Provan Ward. It comprises the residential segment north of Royston Road, east of Pinkston Road and west of Broomfield Road, with a concentration of industry along the north boundary.

Area II represents the extent of the Cowlairs Ward as it was at the time of the 1935 overcrowding survey, and is therefore suitable for comparative purposes. It is residential in character apart from the large industrial undertakings of the North British Locomotive Works and of Frederick Braby & Co., Ltd., Sheet Steel Manufacturers. Open spaces are formed by the derelict Sighthill Cemetery to the west and the open spaces around Petershill Football Ground to the east.

Table I (Appendix I) reveals that the densities of population and of houses per acre are distributed fairly evenly over the two areas of the ward and fall below the gross residential densities of 15 houses per acre and 54 persons per acre, adopted by the Corporation in 1946 for the intermediate zone of the city.

Of the 8,170 houses in the ward, 4,353 or 53.28 per cent. fall short of what are considered desirable houses and of these 627 or 7.67 per cent. are considered unfit for human habitation. It is noted that 6,139 or 75 per cent. of the houses consist of one and two apartments, the majority of these being built towards the end of the last century. This is the principal factor contributing to the overcrowding problem that faces us to-day.

Table II (Appendix I) shows that under the 1935 Standard 2,533 or 31 per cent. of the houses in the ward are overcrowded—and that this is more marked in Area I than in Area II (47.8 per cent. as contrasted with 25.8 per cent.). By the 1944 Standard, 5,183 or 63.4 per cent. of the houses in the ward are overcrowded.

Table III (Appendix I) shows that the number of families living in overcrowded conditions has been reduced by 10.7 per cent. since the survey made in 1935. It is estimated that 4,353 new houses are required to replace the unsatisfactory houses and to abate overcrowding. An allowance has been made for some of the displaced families in the unfit houses being absorbed into the fit houses rendered vacant by decrowding (see Table IV—Appendix I). This estimate is based on

the 1944 Standard issued by the Department of Health for Scotland. At the time of the 1935 Survey it was estimated that 1,357 houses were required to deal with unfit houses and overcrowding in the ward (Area II).

It would be impracticable to provide all the new houses within the ward because of the larger area they would require and the need to reduce the nett density of houses. In consequence there would of necessity be a reduction in the gross residential densities, even although the present densities are within the limits adopted by the Corporation in 1946.

The 14th (Cowcaddens) Ward is one of the central wards of the city. Within its boundaries are large commercial undertakings and light industry. In consequence, the residential areas are restricted in extent, principally to the southern half. It is transversed by a branch of the Forth and Clyde Canal which divides the ward into approximately two equal parts and is dominated by the higher ground around Port Dundas.

The ward extends to 488 acres with a population, including institutions, of 28,524 persons (survey census), giving densities of 58.5 persons per acre and 15.7 houses per acre. It is because these density figures are misleading that the ward has been divided into two areas for the purpose of this analysis.

Area I lies to the south of the Canal and has densities of 27 houses per acre and 98.7 persons per acre. This is considerably in excess of the gross residential densities of 18.5 houses per acre and 66 persons per acre adopted for the inner zone of the city.

Area II is to the north of the Canal and has densities of 6 houses per acre and 24.2 persons per acre, but it must be borne in mind that the area contains many commercial properties.

Table I (Appendix II) reveals that of the 7,654 houses in the ward, 5,921 or 77.3 per cent. fall short of what are considered desirable houses. Of these, 1,425 or 18.6 per cent. are considered unfit for human habitation and 5,976 or 78 per cent. are houses of one and two apartments. The problems of density and unsatisfactory houses are greater in Area I.

Table II (Appendix II) reveals that under the 1935 Housing Standard 2,895 or 37.8 per cent. of the houses are overcrowded, and

under the 1944 Housing Standard 5,242 or 68·4 per cent. are overcrowded. As is to be expected, overcrowding occurs principally in the one- and two-apartment houses. It is also noted that 50 per cent. of the families were overcrowded by only one-half or one unit.

Table III (Appendix II) shows that the number of families living in overcrowded conditions has been reduced by 6·1 per cent. since the survey made in 1935.

It is estimated that 5,921 new houses are required to replace the unsatisfactory houses and to abate overcrowding. In 1935 it was estimated that 3,012 houses were required to replace unfit houses and to abate overcrowding (see Table IV—Appendix II).

Obviously, only a fraction of the new houses could be built on the sites of the properties demolished, and in consequence the greater part of the population would require to be rehoused outwith the ward. This would bring the gross residential densities within the limits envisaged by the Corporation for the inner zone of the city.

The survey, so far as it has been completed is summarised in the following table and reveals that the problem of rehousing the population in satisfactory homes has hardly been touched despite the fact that some 70,000 houses have been built by the Local Authority since 1919.

SUMMARY OF CONDITIONS FOUND BY HOUSING SURVEY.

	Popula- tion.	No. of Houses	Density Persons per Acre.	Houses per Acre.	No. of Unsatis- factory Houses.	No. of Over- crowded Houses 1935 Standard.	Percentage Reduction in Over- crowding Since 1935.
Ward 8 ... (Cowlairs)	29,201	8,170	45·3	13	4,353 53·3%	2,533 31%	10·7%
Ward 10 ... (Townhead)	37,264	9,737	123·8	32	6,381 65·5%	2,905 29·8%	7·6%
Ward 14 ... (Cowcaddens)	28,524	7,654	58·5	16	5,921 77·3%	2,895 37·8%	6·1%

Rent Restriction Acts.—Application for certificates in terms of the above Acts numbered 123 ; of these 66 were granted, 53 refused, and 4 withdrawn. Five applications for reports were granted to owners on completion of work specified on certificates issued to tenants.

Supervision of Rehousing Schemes.—The nurse inspectresses made 24,342 visits to the 6,549 houses in the various rehousing schemes during the year. On 14,989 occasions the houses were found to be satisfactory; on 8,770 occasions they were found to be fair when a word in season was given to the housewife; and on 205 occasions unsatisfactory conditions were found requiring firm action by the nurse. Only on 27 visits were bugs found in houses. This is a remarkable testimony to the efficiency of the nurses' work over the years especially when it is realised that almost all the tenants originally came from bug infested houses.

At the request of the City Factor's Department, 899 visits were made to houses in various intermediate schemes. The standard of housekeeping on 232 occasions was found to be only fair, and on 20 occasions completely unsatisfactory. Appropriate action was taken to effect an improvement.

In the course of the year the nurse inspectresses reported on 191 applications by tenants for transfer to houses outwith rehousing schemes. They were able to report that 186 of the applicants were suitable for transfer.

INSPECTION OF SCHOOL CHILDREN FOR VERMINOUS CONDITIONS.

The thirty schools for which the Division is responsible were visited on 365 occasions, and 19,905 boys and 16,728 girls were examined.

Boys found infested (pediculus capitis)	...	...	...	...	5
and infested (nits only)	...	...	...	...	3,142
Girls found infested (pediculus capitis)	...	...	...	...	7
and infested (nits only)	...	...	...	...	6,033

There was no difficulty in having the condition attended to by the parents.

40 boys and 7 girls were found with fleas and 108 boys and 11 girls were found dirty in body and in clothing.

SANITARY CONVENIENCES.

There is no material change in the number of water-closets shared by two or more families. The following table indicates the distribution of these throughout the Division.

WATER-CLOSETS USED IN COMMON.

Wards.	Common to—				Total	
	2 tenants.	3 tenants.	4 tenants.	5+ tenants.		
8	395	869	250	18	1,532	
9	199	477	111	15	802	
10	445	659	401	83	1,588	
14	371	929	321	91	1,712	
15	183	749	300	130	1,362	
16	129	232	130	5	496	
17	88	902	171	18	1,179	
18	144	543	110	8	805	
Totals	...	1,954	5,360	1,794	368	9,476

There are 43 dry closets, including chemical closets, in use. There are no privy middens.

Five one-apartment and 27 two-apartment houses are without an internal water supply.

JOHN D. ARTON,
Divisional Sanitary Inspector.

APPENDIX I.

TABLE I.

DENSITIES, CLASSIFICATION AND SIZES OF HOUSES IN 8TH (COWLAIRS) WARD.

Area.	Acre- age.	Population.		Persons per Acre.	Houses per Acre.	Classification of Houses.				Sizes of Houses in Apartments.					Total Number of Houses
		Residen- tial.	Institu- tional.			Stan- dard.	Sub- stan- dard A.	Sub- stan- dard B.	Unfit.	1	2	3	4	5+	
I	189	7,888	—	41.73	10	795 41.2%	47 2.4%	460 23.9%	627 32.5%	355	1,131	429	8	6	1,929
II	456	20,030	1,283	46.7	14	1,065 17.1%	1,910 30.6%	3,266 52.3%	—	1,091	3,562	1,315	242	31	6,241
Total Ward	645	27,918	1,283	45.3	13	1,860 22.8%	1,957 23.9%	3,726 45.6%	627 7.7%	1,446	4,693	1,744	250	37	8,170

APPENDIX I.

TABLE II.

NUMBER OF HOUSES OVERCROWDED IN 8TH (COWLAIRS) WARD.

Area.	Number of Houses Overcrowded according to 1935 Standard.							Number of Houses Overcrowded according to 1944 Standard.							Degree of Overcrowding in Units according to 1935 Standard.										
	Apartments.							Apartments.																	
	1	2	3	4	5	Total	Per- cent- age	1	2	3	4	5	Total	Per- cent- age	1	2	3	4	5	6	7	8	9	10	11
I	228	542	152	1	—	923	47.8	355	834	251	1	—	1,441	74.7	192	273	120	128	55	30	26	14	11	5	3
II	440	954	188	27	1	1,610	25.8	1,091	2,166	410	74	1	3,742	59.9	563	578	182	142	46	37	28	12	11	5	4
Totals	668	1,496	340	28	1	2,533	31.0	1,446	3,000	661	75	1	5,183	63.4	755	851	302	271	101	95	58	38	25	16	9

APPENDIX I.

TABLE III.

COMPARISON OF OVERCROWDING AS SHOWN BY 1935 AND 1950 SURVEYS IN 8TH (COWLAIRS) WARD.
(AREA II OF THE PRESENT WARD 8 BEING COWLAIRS WARD PREVIOUS TO ALTERATION OF BOUNDARIES).

Survey	Area	Population.		Per Hous's per Acre.	No. of Hous's	Sizes of Houses in Apartments.					Number of Houses Overcrowded (1935 Standard).						Degree of Overcrowding in Units.																
						Apartments.					Apartments.																						
		Resi- dential.	Insti- tuti- onal.	1	2	3	4	5+	1	2	3	4	5	Total	%	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½				
Ward in 1935	456	20,845	1,512	49.0	12	5,610	1064	3,589	833	105	19	475	1,345	213	9	2	2,044	36.4	467	735	179	297	98	125	56	45	12	17	7	2	2	1	1
Area II 1950	456	20,030	1,283	46.7	14	6,241*	1091	3,562	1,315	242	31	440	954	188	27	1	1,610	25.7	563	518	182	143	46	37	28	12	11	5	4	-	1	-	

* Since 1935 there has been a net increase of 631 houses in the area under consideration—27 houses having been demolished and 658 added, mainly by new building and sub-division of existing houses.

APPENDIX I.

TABLE IV.

SUMMARY—8TH (COWLAIRS) WARD.

	Area I.						Area II.						Totals.					
	Apartments.						Apartments.						Apartments.					
	1	2	3	4	5	Total.	1	2	3	4	5	Total.	1	2	3	4	5	Total.
<i>Houses Surveyed—</i>																		
Standard "A"	—	411	373	7	4	795	—	62	772	206	25	1,065	—	473	1,145	213	29	1,860
Sub-Standard "A"	—	41	4	—	2	47	5	1,510	365	27	3	1,910	5	1,551	369	27	5	1,957
Sub-Standard "B" (unsatisfactory houses)	152	286	21	1	—	460	1,086	1,990	178	9	3	3,266	1,238	2,276	199	10	3	3,726
Unfit (unsatisfactory houses)	203	393	31	—	—	627	—	—	—	—	—	—	203	393	31	—	—	627
	355	1,131	429	8	6	1,929	1,091	3,562	1,315	242	31	6,241	1,446	4,693	1,744	250	37	8,170
<i>Houses Overcrowded (1935 Standard)—</i>																		
Standard "A"	—	145	137	1	—	283	—	15	157	27	1	200	—	160	294	28	1	483
Sub-Standard "A"	—	21	1	—	—	22	2	408	20	—	—	430	2	429	21	—	—	452
Sub-Standard "B" (unsatisfactory houses)	84	150	4	—	—	238	438	531	11	—	—	980	522	681	15	—	—	1,218
Unfit (unsatisfactory houses)	144	226	10	—	—	380	—	—	—	—	—	—	144	226	10	—	—	380
	228	542	152	1	—	923	440	954	188	27	1	1,610	668	1,496	340	28	1	2,533
<i>Houses Overcrowded (1944 Standard) —</i>																		
Standard "A"	—	265	225	1	—	491	—	27	303	71	1	402	—	292	528	72	1	893
Sub-Standard "A"	—	33	2	—	—	35	5	922	65	2	—	994	5	988	67	2	—	1,029
Sub-Standard "B" (unsatisfactory houses)	152	225	8	—	—	385	1,086	1,217	42	1	—	2,346	1,238	1,442	50	1	—	2,731
Unfit (unsatisfactory houses)	203	311	16	—	—	530	—	—	—	—	—	—	203	311	16	—	—	530
	355	834	251	1	—	1,441	1,091	2,166	410	74	1	3,742	1,446	3,000	661	75	1	5,183
<i>Houses required to rehouse tenants of unsatisfactory houses and to abate Overcrowding—</i>																		
(1935 Standard) .....	...	...	...	...	...	1,392	...	...	...	...	...	3,896	...	...	...	...	...	5,288
(1944 Standard) .....	...	...	...	...	...	1,613	...	...	...	...	...	4,662	...	...	...	...	...	6,275
<i>Number of fit houses rendered vacant by decrowding—</i>																		
(1935 Standard) .....	...	...	...	...	...	305	...	...	...	...	...	630	...	...	...	...	...	935
(1944 Standard) .....	...	...	...	...	...	526	...	...	...	...	...	1,306	...	...	...	...	...	1,922
<i>Net number of new Houses required</i>	...	...	...	...	...	1,087	...	...	...	...	...	3,266	...	...	...	...	...	4,353
<i>Conditions after Relhousing and Demolition of Unsatisfactory Houses—</i>																		
Net Number of Houses remaining in Ward .....	...	...	...	...	...	842	...	...	...	...	...	2,975	...	...	...	...	...	3,817
Number of Houses per Acre .....	...	...	...	...	...	4	...	...	...	...	...	7	...	...	...	...	...	6
Estimated number of persons in Ward .....	...	...	...	...	...	3,489	...	...	...	...	...	13,378	...	...	...	...	...	16,767
Estimated number of persons per Acre .....	...	...	...	...	...	17.9	...	...	...	...	...	29.3	...	...	...	...	...	26.0

APPENDIX II.

TABLE I.

DENSITIES, CLASSIFICATION AND SIZES OF HOUSES IN 14TH (COWCADDENS) WARD.

Area.	Acre- age.	Population.		Persons per Acre.	Houses per Acre.	Classification of Houses.				Sizes of Houses in Apartments.					Total Number of Houses.
		Residen- tial.	Institu- tional.			Stan- dard.	Sub- dard A.	Sub- dard B.	Unfit.	1	2	3	4	5+	
I	223	21,411	600	98.7	27	179 2.9%	914 15.0%	3,728 61.2%	1,274 20.9%	1,110	3,614	1,154	139	78	6,095
II	265	6,513	—	24.2	6	265 17.0%	375 24.0%	768 49.3%	151 9.7%	367	885	269	27	11	1,559
Total Ward	488	27,924	600	58.5	15.7	444 5.8%	1,289 16.9%	4,496 58.7%	1,425 18.6%	1,477	4,499	1,423	166	89	7,654

APPENDIX II.

TABLE II.

NUMBER OF HOUSES OVERCROWDED IN 14TH (COWCADDENS) WARD.

Area.	Number of Houses Overcrowded according to 1935 Standard.							Number of Houses Overcrowded according to 1944 Standard.							Degree of Overcrowding in Units according to 1935 Standard.														
	Apartments.							Apartments.																					
	1	2	3	4	5	Total	Per-cent-age.	1	2	3	4	5	Total	Per-cent-age.	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	
I	554	1,522	179	3	2	2,260	37.1	1,110	2,544	406	22	13	4,095	67.2	487	685	303	316	143	121	67	57	23	23	11	14	2	3	5
II	202	362	67	4	—	635	40.7	367	637	136	7	—	1,117	73.5	187	207	77	64	24	22	15	14	9	5	3	6	2	—	—
Totals	756	1,884	246	7	2	2,895	37.8	1,477	3,181	542	29	13	5,212	68.4	674	892	380	380	167	113	82	71	32	28	14	20	4	3	5

APPENDIX II.

TABLE III.

COMPARISON OF OVERCROWDING AS SHOWN BY 1935 AND 1950 SURVEYS—WARD 14 (COWCADDENS).

Survey	Population.		Per-Hous's per Acre.	No. of Hous's	Sizes of Houses in Apartments.						Number of Houses Overcrowded (1935 Standard).										Degree of Overcrowding in Units.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Resi- dential.	Insti- tutional.			1	2	3	4	5+	Apartments.						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107

* Since 1935 there has been a net decrease of 556 houses in the ward—879 having been demolished or closed and 323 houses added by new building and sub-division of existing houses.

APPENDIX II.

TABLE IV.

SUMMARY—14TH (COWCADDENS) WARD.

Area I.										Area II.										Totals.				
Area I.										Area II.										Totals.				
Area I.										Area II.										Totals.				
Area I.										Area II.										Totals.				
Area I.										Area II.										Totals.				
Area I.										Area II.										Totals.				
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Area I.										Area II.										Totals.				
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EASTERN DIVISION.

Although no major changes have taken place in the Division during the past year the sanitary operations were both varied and interesting. In particular, the inclement weather gave rise to a large number of complaints, many of which were in connection with the overflowing of waterways. Apart from a section of the River Clyde, the five waterways within the Division, namely, Molindinar Burn, Camlachie Burn, Lightburn, Tollcross Burn and Easterhouse Burn, are greatly affected by the amount of rainfall. As 1950 was a year of high rainfall there was an increase in complaints of flooding and a reduction in complaints concerned with fouling of watercourses when compared with the previous year which had a low rainfall. In last year's report it was mentioned that the very low water mark of the Easterhouse Burn intensified the effects of polluting effluents from a particular piggery. It is satisfactory to report that the alterations and improvements carried out some fifteen months ago to the plant dealing with these effluents have so far been successful, but a final decision must be delayed until it is seen to what extent the pollution has been reduced during prolonged dry periods. In contrast the alterations and improvements carried out along the banks of the Camlachie Burn to prevent overflowing and consequent flooding have been amply tested, and it can be confidently stated that the work so far completed has been entirely satisfactory. Flooding which formerly occurred at one point in Mountainblue Street has now been checked and this constantly recurring nuisance removed.

Old tenemental properties continue to deteriorate. Many of the nuisances reported are entirely due to the growing tendency to neglect maintenance. This is caused in the main by uneconomic rents, and concerns all sections of the community. More and more responsibility is annually being passed on to the local authority for the provision and maintenance of property. When houses become vacant many owners are insisting that they be put up for sale and not re-let. This means that many houses are lying empty for long periods, and at December, 1950, it was estimated that there were upwards of 90 unoccupied houses in the division. In other cases, particularly where the owner has abandoned the property or where for other reasons the property is administered by legal representatives, it is sometimes found that it has been handed over to the occupiers, so that these occupiers are living rent free although they must pay rates. Usually it is possible to make them attend to the removal of nuisances, but

there is no one to organise ordinary maintenance repairs to the property. It therefore falls to the local authority as the only remaining responsible party to take such steps as are necessary to maintain the houses in a wind-and water-tight condition.

Details of the various nuisances removed during the year will be found in Table XVII of the appendix, from which it will be seen that the greatest number of nuisances is found in connection with the water carriage system of soil and waste removal.

Some nuisances require many visits, a good deal of investigation, and a lot of perseverance before they are finally disposed of. As an instance, complaint was made of snails infesting a house on the ground flat of a large tenement property. On investigation of the complaint the inspector found that the degree of infestation was by no means exaggerated, as evidence of slimy trails was found not only on the floors and carpets but on the furniture, inside cupboards and sideboard and, on one occasion, there were trails actually inside the baby's perambulator. To make a satisfactory examination it was necessary to have the assistance of the factor's tradesmen. When part of the floor was lifted and the solum examined there was evidence of the snails gaining access through soft joints between the walls and the solum and by means of a false floor under the sink. These points were sealed off with cement and the work was kept under daily observation to ensure that no point of access was omitted. After the floor was relaid a few snail marks were still found, and as these were believed to be caused by one or two snails living in the space between the solum and the floor boards, slug poison was laid down with a suitable bait and there has been no further evidence of nuisance.

The number of nuisance visits made during the year was 105,521, and the number of nuisances removed or abated was 10,743. This is a decrease from last year, and is due in part to the time spent on surveillance of the smallpox outbreak during the months of March and April.

Two cases of failure to comply with intimations were encountered, one concerning a choked drain and w.c. and the other a defective house vent. Both defendants pled guilty and the Corporation were granted warrant to carry out the repairs and recover the costs.

The supervision of dietetic water storage cisterns required 152 visits and where the cisterns were defective or in need of cleansing, notices

were served on the owners. In all cases, cleansing and repairs were carried out without need for further action.

Cleansing of Common Stairs and Passages.—Many visits following complaints under this heading are due to quarrels and bad feeling between neighbours, but as there is no other way of settling the complaints all must be individually investigated. There were 2,838 visits in connection with dirty stairs and passages, 481 verbal warnings were given and 692 rotation cards were served. Five cases were taken to court for failure to cleanse the stair or passage. All were found guilty, four being admonished and one fined £1.

Drainage.—A total of 2,507 visits were made in connection with drainage schemes and sanitary fittings and the number of tests applied was 245.

Rent Restrictions Acts.—There has been an increase in the number of applications for certificates in terms of the Rent Restrictions Acts compared with 1949. Eighty-three applications were made, of which 51 certificates were granted. Eleven applications to cancel certificates were made on behalf of owners, but on examination of the houses concerned only 7 could be granted.

Housing.—The number of new houses constructed within the Division during the year again shows a drop in comparison with the number for the previous year. The figures are 340 new houses and one house converted from other premises. Thirty-three single persons' flats of one-apartment with kitchenette and bathroom were constructed at Sannox Gardens facing Alexandra Park and provide a fine type of house for the able-bodied person who has, or prefers, to live alone. There is a growing demand for this type of house, and it would be a wise policy to have more incorporated in our housing schemes of the future. Of the remaining 308 houses, 16 were of three apartments and 292 of four apartments.

In terms of the Housing (Scotland) Act, 1935, 878 overcrowded families were transferred to larger houses, and of the families who took over occupancy of the vacated houses only 136 caused the houses to be again overcrowded. Here a favourable comparison can be made with last year's figures, and it is very satisfactory to note that although the number of families rehoused is less than last year the percentage

of houses again overcrowded is much lower. The figures for the last three years are :—

1948	...	23·53%	of houses again overcrowded.
1949	...	20·76%	" " "
1950	...	15·48%	" " "

The number of houses closed or demolished as unfit for human habitation is largely determined by the number of houses available for rehousing the tenants. Therefore, although 22 houses were closed or demolished in terms of the Housing (Scotland) Acts, this has little bearing on the housing conditions in the area. Unfortunately, there are many more old and worn tenement properties similarly situated or otherwise in such a state by reason of sanitary defects or disrepair as to be considered undesirable for human habitation, but no real progress can be made towards improving environmental conditions until permission is granted to local authorities to form clearance areas.

Offensive Trades.—These businesses require careful and regular supervision largely because of their nature and the condition of the raw materials supplied. There is no lack of co-operation by the owners, who fully appreciate the difficult nature of their business. Offensive trades are named in the Public Health (Scotland) Act, 1897, and they are all concerned with the treatment, manufacture or disposal of animal carcasses and organs. Few materials can be more offensive to the senses than decaying animal matter, and since some of these processes include heat treatment, the gases given off must be kept under control and rendered innocuous as far as possible before being allowed to escape into the atmosphere. Despite every care, cases occur where gases escape through defects in the plant and offensive smells become the source of immediate complaints. Unfortunately, many of the offensive trades, which were originally established in areas well removed from dwelling-houses, are now surrounded by new housing schemes. With dwelling-houses only some 30 to 40 feet distant, it is not surprising that complaints are made, especially in periods of warm weather. It follows, therefore, that an inspector investigating complaints arising from the operation of these businesses must have a good knowledge of the plant in use in order that obscure and minor defects can be detected and adequately dealt with. This year, the number of persons registered as conducting offensive trades within the Division was 42, an increase of one. In addition, the Health and Welfare Committee considered a further application for sanction to establish business as a Hide and Skin Merchant. The proposed premises

were situated in a very congested area and were back-to-back with premises occupied by a pie manufacturing firm. In view of the nature of the nuisances that were likely to arise from the establishment of such a business, it was decided not to recommend the granting of sanction by the Corporation. Relations between the officers of the Department and the owners were maintained at a very satisfactory level, and there exists a mutual confidence and co-operation which is invaluable.

Common Lodging Houses.—There has been no change in the number of common lodging houses in the Division, there being five houses for males, two for females, and one boarding house for seamen. The sleeping accommodation in two houses has been changed, however, and the total is now 2,372 compared with 2,344 last year. All defects were verbally notified to the keepers and no further action was necessary as the complaints were immediately attended to. 280 visits were made by inspectors.

Farmed-out Houses.—Farmed-out houses require frequent visits by the inspectors to ensure that the occupants maintain their rooms in a clean condition and that the owners attend to repairs and nuisances without unnecessary delay. There are 98 farmed-out houses and the visits made by the inspectors totalled 720.

Piggeries.—New premises opened up during the year bring the total number of piggeries in the Division to 24. Careful supervision is being maintained to ensure that the local authority Bye-laws are being adhered to, and so far all suggestions for improvements have met with approval from the owners. 240 visits were made and only 36 nuisances found.

Sanitary Conveniences used in common.—Although a small reduction has taken place in the number of w.c.'s used by more than one family, due to the demolition of unsatisfactory houses, the number remaining, 9,457, is still very high. Dry closets still in use are the same as last year, 53, and there is one privy midden. There are 65 houses without internal sink and water supply, and the number of ashpits in use remains at 21. Regular visits are made to the 92 septic tanks and all improvements suggested were carried out. The number of dwelling-houses in the Division has now increased to 61,292, and the number of houses with inside bath and w.c. accommodation is now 25,155 or 41.04 per cent. of the total compared with 40.6 per cent. last year.

Factories.—The following statement shows the number of new factories registered during the year and the total on the register at 31st December, 1950 :—

				Factories.		
				Mechanical.	Non-Mechanical.	Bakehouses.
New	...	...	...	41	6	2
Total	...	...	...	857	138	88

Number of factories in the Division—1,083.

Regular inspection of the factories is carried out by the inspectors, and a total of 3,033 visits was made. The number of nuisances or contraventions of the Factories Act, 1937, and Sanitary Accommodation Regulations, 1938, was 158, but in all cases effective measures were taken by the owners or occupiers without delay.

Inspections of shops numbered 120, and the nuisances found and remedied totalled 41.

Rat Infestations.—The slight increase in the number of rats killed during the year compared with last year's figures is of no great significance and does not indicate any increase in infestation in the Division. As only minor pockets remain to be dealt with there will be fluctuations from year to year according to the nature of premises treated and the food supply available to the rodents. The two most important points in conducting a war against rats are to seek out their nesting places and to control their food supply. Unfortunately, no effective measures concerning rat-proofing of premises are undertaken at the time of building and it is usually after an infestation has occurred that rat-proofing is considered. In older properties where alterations have been made from time to time, the points of access suitable to rats are many and varied. Likely points are where water pipes, drain pipes, gas pipes or electric cables pass through the walls. If these points were suitably sealed up after repairs or alterations are completed there would be less chance of infestation.

The Rodent Control teams are now the responsibility of the Corporation since the Department of Agriculture terminated the service supplied by them from 1945 until March, 1950. There were 3,606 rats killed during the year, all of the brown rat family, and 497 mice were destroyed.

The number of premises showing evidence of rats and treated was as follows :—

Dwelling-houses	...	...	...	78
Food premises	...	...	...	46
Other premises	...	...	...	115
Sewers	...	...	...	7
				<hr/>
				246
				<hr/>

The number of buildings rat-proofed was 158.

Tents, Vans and Sheds.—The case of a van being used for human habitation without the sanction of the local authority, referred to in last year's report, has now been decided in favour of the Corporation and the order to stop using the van for human habitation has been complied with.

Six permanent sites are provided where permission is granted for vans to be used for human habitation, and these are kept under regular supervision by the inspectors. Although the figures vary from time to time, it is estimated that the average number of vans under supervision at any particular time is 60. The number of visits made by the inspectors was 325, and all nuisances and contraventions of regulations were promptly dealt with.

Squatter Families.—Particular care is taken to ensure that squatter families are not given any opportunity to take over premises which are subject to a closing or demolition order. As a consequence of the vigilance and prompt action of the inspectors there has been a reduction in the number of squatter families to 36 compared with last year's 42 families.

Efforts to move the squatters who have been in occupation of the tenement property at 7 Largs Street have been unsuccessful. Unfortunately no direct action to have them evicted has been undertaken, and nuisances which arise due to the condition of the property and negligence of the squatters are removed as expeditiously as possible. It is felt that ejection of the squatters and demolition of the property is the most satisfactory answer to the problem, and it is hoped that more positive action against the squatters may be possible in the near future.

Elderly Persons.—The difficult problem of attending to the needs of elderly persons who are no longer capable of taking care of themselves calls for action by the sanitary inspector as well as by the medical officer. Where possible, assistance is given in having the house cleaned, and thereafter the Domestic Help Section is advised of the position so that assistance can be given to maintain a good standard of cleanliness. Many old persons are encountered who are physically unfit to look after their own houses owing to illness, and these are becoming a growing problem.

Nurse Inspectors.—Regular inspections of all rehousing scheme houses are carried out by the nurse inspectors. They also carry out examinations of families who have become infested with vermin. The nurse inspectors carried out 46,703 visits and found 1,275 houses dirty, 143 houses being also bug infested. In no case was it necessary to resort to legal action, and with regular re-visits and constant encouragement to the tenants all cases were cleared up in due course.

The number of school visits was 396, and 1,902 boys and 5,104 girls were found in need of attention. Follow-up visits to the homes of children found infested with vermin numbered 3,109. These follow-up visits are of the utmost importance as they often reveal the true source of the infestation which is sometimes found in young adolescents who are outwith the supervision given to school children. Where the desired results cannot be obtained by tact and persuasion, written notices to parents are sent out, and should the houses be dirty or infested with vermin action under the Police Acts can be taken. However, the success of the nurses was such that all cases were cleared up without the need for legal proceedings.

ALEXANDER EASTON,
DIVISIONAL SANITARY INSPECTOR.

SOUTH-EASTERN DIVISION.

General Sanitary Operations.—The sanitary condition of the Division was maintained during the year despite many delays in the execution of work and the removal of nuisances. As in former years, the detection and removal of nuisances occupied most of the inspectors' time. Out of a total of 98,012 visits paid, 57,445 were for this purpose.

During the year 7,047 intimations of nuisances in terms of the Public Health (Scotland) Act, 1897, were issued and remedied. Failure to comply necessitated the issue of 37 statutory notices to the defaulters. All five cases in which it was necessary to take proceedings before the Sheriff Court were successfully contested; in three the work was carried out by private tradesmen and in two by the Corporation Housing Department.

Complaints received by telephone, letter and personal call numbered 3,597. Many were anonymous and all protested against the disturbance of normal family life by the act of some person or set of circumstances. A few were intended for other departments and were redirected. But all had for their common aim the remedy of a grievance. The complaints were varied and all received prompt attention. Some idea of their nature and distribution throughout the various wards and districts can be seen from the following analysis :—

Complaints.	Municipal Wards.										Total
	26		25		33		33		34		
					35	35	33	36	36		
					36	36	34	37	37		
Districts.											
	1	2	3	4	5	6	7	8	9	10	
Choked drains and flooding	83	50	30	70	42	36	39	33	40	13	436
" Please call "—general	29	24	35	70	38	32	24	26	10	6	294
Offensive smells	10	11	13	6	5	9	12	7	1	4	78
Defective Woodwork	23	14	19	8	8	6	12	6	2	1	99
Dampness	76	45	36	46	32	22	24	14	26	8	329
Dirty stairs and closes	49	45	62	43	27	48	20	18	10	7	329
Insect Infestation	52	31	35	22	34	33	19	10	10	8	254
Animals (including fowls)	5	7	3	6	3	3	2	12	3	10	54
Police offences	7	4	10	1	4	5	3	4	6	8	52
Defective windows	5	2	8	6	2	2	4	2	4	—	35
Noise	1	1	—	—	—	—	—	3	—	—	5
Defective fittings (w.c., etc.)	59	32	54	51	17	14	16	14	15	6	278
Internal disrepair	53	12	18	25	23	14	19	12	7	21	204
Smoke pollution	32	25	27	33	15	15	14	15	8	2	186
Rats and mice infestation	197	231	145	76	39	91	39	28	5	51	902
Limewashing (closes and stairs)	9	4	4	8	10	12	7	6	1	1	62
	690	538	499	471	299	342	254	210	148	146	3,597

Limewashing of Closets and Staircases.—In this connection 3,416 visits were made resulting in the issue of 565 notices. In a number

of properties limewashing and painting had been carried out voluntarily bringing the total of closes cleaned to 696.

Some difficulty arose over a number of properties in the lower rental group where large areas of wall plaster had been broken, mainly the result of vandalism. The property owners, while willing to redecorate, were not prepared to meet the additional costs of making good the plaster defects. In most cases a compromise was reached by an extension of time and a spread-over of the painting and lime-washing requirements.

Dungpits.—There are 31 dungpits in the Division mainly attached to stable premises. They are emptied regularly and each was sprayed three times during the year by the Department's sprayers. No complaint of nuisance was received.

Dirty Houses.—Many of the complaints received under this heading are found to be in the homes of aged people who, either through age or infirmity, are incapable of cleaning themselves or their houses. In nearly all cases these elderly people were without near or living relatives and relied on the charity of neighbours for food and assistance.

Much useful and charitable work is done by the district inspectors and nurse-inspectors to alleviate the physical suffering of these unfortunates and to render the home conditions more comfortable.

Fourteen such cases were reported during the year, mostly from well meaning neighbours. In all but two, the houses were cleaned by the Department's cleaners.

Eight hundred and twenty visits were made in connection with dirty houses and only in one case was it necessary to take court action. In this case the tenant, who occupied a hut in a squatters' camp, was found guilty but admonished on his third appearance in court after the work required had been carried out.

Piggeries.—There are 8 licensed piggeries situated in the outer municipal wards 34 and 37 of the Division. Two establishments have no pigs at present; one of these, because of structural neglect, is now unsuitable and objection will be made if application for renewal of licence is made. The remainder are maintained in a satisfactory condition and regularly inspected.

Rat Infestation.—On 20th March the Department's Rodent Control Section came into being. While it is true to say that extermination work was not held up by the transfer from the Department of Agriculture, some slight delays were experienced at first owing to equipment difficulties. The service now runs smoothly and efficiently.

It will be seen from the summary of operations that dwelling-house property remains the greatest source of infestation. Where food supply shops and catering establishments are situated in the same property many difficulties have to be overcome if complete extermination is to be achieved. It is not always practicable to render properties vermin proof; basement cellar intercommunication and the enormous structural work involved make the proofing of many buildings economically impossible.

Although many infestations were the result of one or two rats gaining access to premises through structural defects above ground and proceeding to start a colony, by far the greatest number were from underground burrowing. In more than one instance, evidence of entry along the drain track was found which suggested that the sewer was the probable source. It was not always possible to establish proof of this, as seldom were rats seen in any of the sewers examined. In only two cases were defects found in the sewer structure.

In two of the new housing schemes complaints were received from the tenants of recently occupied houses of the presence of rats both outside and inside the houses, and considerable time was spent endeavouring to trace the means of ingress to each house as no evidence was visible above ground. They were eventually traced to the openings made for the supply services which had not been effectively sealed.

The infestations were not heavy; the highest number caught in one house was eight, but, as in other properties, inter-house communication below floors made trapping difficult.

In one area which adjoins the County of Renfrew, rats were seen to travel from the sheds and structures in the neighbouring fields to the new houses. An examination of these holdings revealed evidence of heavy infestations. The County Rodent Control Officer was accordingly notified.

Prior to 20th March extermination work was carried out by the Department of Agriculture for Scotland. 902 complaints were received during the year, and the following table shows the work done by both that Department and the Rodent Control Service :—

SUMMARY OF OPERATIONS.

Type of Premises.	RATS.				MICE.							
	Trapped.	Poisoned	Gassed.	Total Kill	Trapped.	Total Kill	Infestations Treated.	Pre-mises Rat-Proofed				
	D.O.A. R.C.S.	D.O.A. R.C.S.	D.O.A. R.C.S.		D.O.A. R.C.S.	D.O.A. R.C.S.						
Dwelling Houses ...	331	1,005	—	—	1,336	57	208	147	6	53	192	
Basements and Out-houses ...	146	1,379	138	735	45	352	41	257	—	—		
Shops ...	13	124	—	—	—	137	5	24	—	—	21	
Food Premises ...	104	477	—	—	—	581	10	38	18	12	53	
Business Premises ...	24	328	2	198	2	554	1	6	7	7	19	
Other Premises ...	51	137	14	183	—	414	6	29	30	30	11	
Sewers ...	—	—	—	137	—	137	2	25	—	—	2	
Total ...	669	3,450	154	1,253	47	381	122	587	28	186	214	298

D.O.A. = Department of Agriculture. R.C.S. = Rodent Control Service.

Sub-let Houses.—Following a survey of sub-let houses in the Gorbals Municipal Ward made in the latter part of 1949, one aspect of which was mentioned in my report of that year, some interesting information has been tabulated.

It is revealed that of the 173 houses visited, 75 were entirely sub-let and 98 partly sub-let. The number of sub-let occupancies in each house varied *pro rata* with the number of apartments.

SIZE OF HOUSES AND NUMBER OF OCCUPANCIES.

			No. of Apartments in Houses.								Total.
			2	3	4	5	6	7	8	9	
No. of Houses	...	...	3	9	42	48	60	7	3	1	173
No. of Occupancies	...	...	4	21	156	208	272	36	18	9	724

Most of the houses were of the 4-6 apartment type with an average of 4.2 occupancies per house.

To the already numerous one-roomed houses in the Ward, a big addition has been effected by the sub-dwellings arising from the division of the 173 sub-let houses.

The age and distribution of the population surveyed was as shown :—

			Age in Years.					Total.
			—1	1—9	10—14	15—64	65+	
Persons in Principal Tenancies	...	...	3	80	12	250	—	345
Persons in Sub-tenancies	...	...	62	410	208	1,209	58	1,947
Total	...	...	65	490	220	1,459	58	2,292

Twenty-three of the 173 sub-let houses had an average of four persons per apartment including eleven rooms with five ; ten instances were found where eight persons occupied a room ; seven instances of nine persons ; two instances of 10 persons ; and two instances of 11 persons. One four-roomed house was found to have 29 persons living in it and a nine-roomed house 36.

The sub-let houses were spread over 74 tenements in different streets. The majority, however, were found in the western portion of the Ward. The ratio of houses per tenement is shown below :—

Sub-let Houses per Tenement.	Number of Tenements.	Total Sub-let Houses.
8	1	8
7	4	28
6	3	18
5	4	20
4	3	12
3	7	21
2	14	28
1	38	38
Total	...	...
	74	173

It is unfortunate that the relatively high incidence of sub-letting occurs in a ward which has a density of 161 persons per acre, the second highest ward density in the City.

Twenty cases of chronic illness were found during the visitations, 11 of whom were active tuberculous patients. All were found among the sub-tenants and their families.

A large number of the sub-tenancies were of short duration but there were many families with a history of several years at one address.

Duration of Sub-tenancy. Number of Sub-tenancies.
in years.

—1	97
1+	62
2+	47
3+	54
4+	42
5+	45
6+	32
7+	29
8+	12
9+	14
10+	27
11+	10
12+	28
No information	127
Total	...
	626

The following list gives some information regarding the previous history of the sub-tenants as householders :—

	Number of Occupancies.
Principal Tenants	98
Solitary Persons	173
Families who formerly held houses outwith Glasgow ...	21
Families who formerly held houses within Glasgow—	
Municipal	9
Others	117
	<hr/>
	126
Families who have never had houses	306
	<hr/>
	724
	<hr/>

The following table classifies the occupations of the heads of the sub-tenants' families :—

Class of Occupation.	Number of Sub-tenancies.
Business and Professional	22
Retail Traders, Clerks, etc.	7
Skilled Tradesmen	37
Skilled Labourers	129
Unskilled Labourers	179
Housewives	67
Unemployed, Old-age Pensioners	44
No information	141
	<hr/>
Total	626
	<hr/>

The average income of the sub-tenants' families was in the region of £7 per week. Incomes in excess of this were mainly due to more than one wage earner in the family. The rents of the apartments varied from 6s. 6d. to 15s. weekly unfurnished, and from 8s. to 35s. furnished.

From questions asked it was found that 205 apartments were let furnished. The furnishings were of the scantiest and for the most part consisted of a kitchen table, a bedstead, one or two chairs and a dresser-cum-sideboard.

The absence of suitable storage accommodation for food, food utensils and coal was noted. In most cases food was kept in the dressers and in improvised containers or left lying about, while coal was stored in corners or in various receptacles.

Bug infestation was found in 40 apartments and evidence of rats and mice in 22 apartments. All were disinfested.

Of the 724 occupancies comprising 883 separate apartments, 13 were found to be in a dirty condition. Thirty-seven notices were served on proprietors and principal tenants to cleanse and lime-wash walls and ceilings of internal bathrooms and common lobbies. All were complied with. Disrepair was slightly worse than the average for the district. In many rooms windows were broken and sashes dilapidated, and large areas of broken plaster were noticed on walls of common closes and stairways.

The means of cooking food for the sub-tenants was as shown :—

	Open fire.	Open fire and Gas Ring.	Open fire and Communal Gas Cooker.	Total.
No. of Sub-tenancies ...	415	99	112	626

It was also found that 377 sub-tenants were without food cupboards and 476 with no fixed coal bunkers.

In 163 houses the water-closets although in common use were internal. Only 10 were external. Two houses had two w.c.'s each. Of the 165 internal water-closets, 76 were in separate compartments, while 89 were in compartments also containing the means of water supply.

Every house had a supply of water either from the common bath, lavatory basin or sink, but very few had facilities for washing dishes and cooking utensils other than pails and basins within their apartments. This deficiency, coupled with the absence of a suitable water supply arrangement, justified remedial measures. It was only in October, however, that statutory notices requesting improvement were issued in three instances by the Town Clerk to three principal tenants who also own their respective houses. These cases will be heard before the Stipendiary Magistrate early in 1951 when it is hoped to have a decision in favour of the Corporation.

It is unfortunate that the legality of service of notices in this connection in terms of the Glasgow Police (Amendment) Act, 1890, on principal tenants is in doubt, as it is these tenants who have altered the mode of occupancies and are reaping the financial reward. The matter will be pursued, however, with a view to testing it in court in an endeavour to improve the comfort and hygienic conditions in the sub-let houses by the installation of a common sink in a suitable position outwith the water-closet compartment or occupied apartment.

Rent Restrictions Acts.—Applications for certificates under the Rent Restrictions Acts were received from 97 tenants, this being a slight decrease over last year's total of 123. Of the applications received 18 were granted, 70 refused, 2 withdrawn, and 7 carried forward to 1951. The large number of refusals was the result of the work stated having been completed before submission.

Housing Scheme Visitation.—In this connection 2,412 visits were made to houses in the intermediate and rehousing schemes, and it is satisfactory to report that only 5 houses were classed as dirty. Notices which were issued to two tenants who would not co-operate had the desired effect without recourse to further action.

Schools Visitation.—During the year 144 visits were made to schools, during which 11,606 children were examined. Of these, 294 were found to be infested with vermin and 1,591 infested to a lesser degree. It is distressing that so many children were found to be infested with vermin. While it is true to say that infestation has spread in the school, the blame must rest with the parents or guardians for the lack of proper supervision and care of the children's heads. 429 follow-up visits to the homes of the infested children were made and advice given to the parents in each case.

Inspection of Business Premises.—In connection with the inspection of business premises which includes all registered factories in terms of the Factories Act, 4,607 visits were made resulting in the discovery and removal of 466 contraventions. These defects, mostly of a minor nature, were remedied on receipt of intimations.

It will be seen from the attached figures that 367 factories were removed from the register during the year. This was the result of a purge brought about after consultation with H.M. Inspector of Factories.

These premises while no longer considered to be factories in terms of the Act will continue to be visited under other statutes.

Factories Act, 1937.												Public Health (Scotland) Act, 1937.		
Ward	Number on Register at 31.12.50.				New Registrations.				Removals—1950.				Cater- ing Estab- lish- ments.	Work Places
			Bake- houses.				Bake- houses.				Bake- houses.			
	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.	M.	N.M.		
25	53	4	8	8	2	1	—	—	31	22	—	—	17	13
26	216	49	22	7	9	2	—	—	48	101	—	—	42	83
33	53	15	8	4	3	—	1	—	4	44	—	—	4	15
34	84	7	5	4	3	—	—	—	8	17	—	—	8	10
35	50	6	7	1	1	—	1	—	20	24	—	1	15	16
36	22	8	6	2	1	1	—	—	11	17	—	—	7	8
37	40	3	5	1	2	3	—	—	6	13	—	—	5	9
<hr/>														
518	92	61	27	21	7	2	—	128	238	—	1		98	154

M.=Mechanical.

N.M.=Non-mechanical.

WILLIAM RAE,
Divisional Sanitary Inspector.

SOUTH-WESTERN DIVISION.

Administrative difficulties encountered during the year did not vary much from those of 1949, nuisance discovery and abatement as usual requiring most attention.

A partial restart of slum-clearance was welcomed, but the hope that circumstances would permit maintenance of this policy was not fulfilled.

The surveys of shops and residential property are still in progress, and full comment will be deferred until these are completed.

Campaigns against rats, bugs, beetles, flies and other insects were intensified with gratifying results and proved that the sanitary inspector's knowledge of entomology is an asset in his work.

These and other matters dealt with are given in detail under their respective headings in Table XVII of the Appendix.

General Nuisances.—The most common nuisances in the Division are choked drains, defective sanitary fittings and drain pipes, dirty closes and stairs, smoke pollution of houses, broken plasterwork and defective roofs.

Inspection, detection and removal of nuisance conditions occupy a great deal of the inspector's time, and it is regrettable to record that the time wasted in getting those responsible to take action in many instances is greater than the actual time spent on repairs. Formerly, intimation to an owner that a nuisance existed was sufficient for him to instruct his tradesmen to carry on with the work, but to-day the high cost of repairs is made an excuse for delay and estimates are required.

Generally speaking the bulk of the defects are found in the older tenemental areas and are mainly due to deterioration. In some instances certain owners delay doing repairs until they receive a Section 20 Notice knowing full well that the procedure for abatement of nuisances under the Public Health Act is not a short one. It was not necessary during the year to institute proceedings, but in two cases held over from last year one was completed before the day of the court, the owner paying modified expenses of £2, and in the other the Sheriff decided in favour of the Corporation. The Housing Department executed the necessary repairs at a cost of £11 13s. 2d. which was later paid by the owner. There were 133,379 visits made under this heading during the year, and the number of defects remedied, 13,678, did not vary much from former years.

Drainage.—It is understandable that with the continued development of the Pollok Housing Scheme and the completion of several smaller schemes a great deal of supervision by the district inspectors was necessary, as all drains must be laid to the satisfaction of the sanitary inspector. Concern has already been expressed by colleagues in other areas at the lowering of plumbing standards, and some of the prefabricated sanitary fittings seen so far are anything but reassuring. Much of the drainage work in housing schemes was found to be defective when examined, and the variety of fittings and systems involved present a difficult problem to the inspector who has to attempt to reconcile with the bye-laws the relaxations demanded by the Housing Department's contractors. Practices which were at one time standard are now discarded, while others once frowned upon are now accepted. Changed ideas on design are used as a means of evading the bye-laws.

During the year 3,985 visits were made and smoke and water tests applied on 545 occasions.

Limewashing, etc., of Common Passages, Stairs and Water-closets.—648 notices to limewash and cleanse or paint common stairs, passages and water-closets were served on the owners, and 400 were completed by the end of the year. In addition, 604 were done voluntarily by the owners.

Cleansing of Common Stairs and Passages.—Routine inspection of the district brings to light many cases of failure to keep common stairs and passages clean, and only the good sense and tact of the individual inspector prevents many people appearing in court for this neglect or wilful refusal to take their appropriate turn. It was necessary on only two occasions to institute court proceedings when one tenant pled guilty and was fined ten shillings and the other was admonished.

3,372 visits were made and 1,652 cards served and verbal warnings given.

Factories Act, 1937.—The importance of this branch of the work should not be underestimated, and public health workers are well aware that conditions in many large factories are still detrimental to the health of the employees. Powers with regard to public health matters in mechanical factories are very limited under the Act and it would be of advantage if more weight were placed on the local knowledge possessed by the district sanitary inspector.

Modern factories are, of course, being constructed, but too many old buildings are still utilised in which overcrowding, bad lighting, ventilation and unsatisfactory sanitary conditions prevail. In many cases the barest minimum requirements are provided for the workers, and more supervision is necessary to maintain a reasonable standard of hygiene.

Good, clean sanitary fittings and conditions are appreciated by most workmen, but it is a regrettable fact that the abuse and misuse of sanitary conveniences in some instances amounts to sheer vandalism. Why any worker can do this to the disadvantage of himself and his workmates is beyond comprehension. In many large establishments this abuse is unbelievable, and in one of the local shipyards has led to the grouping of conveniences in accessible places under supervision.

It is not surprising that in some cases the management have not persisted in the repair and upkeep of the conveniences, and that continued visits from the Department have been required to maintain the units in a satisfactory condition. Considerable improvements have been noted following these visits.

Complete supervision, especially of the large industrial units in the Division, demands a great deal of time which, owing to lack of staff, can seldom be given.

Of the 2,150 visits paid during the year, one inspection alone, that of the Co-operative Works at Shieldhall, took an entire week to complete as contrasted with the few minutes required to be spent inspecting some small business premises.

At the close of the year the register of the Division contained 645 mechanical and 125 non-mechanical factories, 37 mechanical and 18 non-mechanical bakeries. Nuisance conditions did not vary much from former years, and no difficulty was experienced in remedying them.

Places of Public Entertainment (Picture-houses, Ice Rink, Billiard Halls and Dance Halls).—It will be appreciated by the patrons of places of public entertainment that the chance of infection, droplet and otherwise, is much greater than if they were out in the wide open spaces, and only if the cleanliness and ventilation are properly supervised by the management can this risk be reduced to a minimum. Periodic examinations of the ventilating systems are made by the district inspector who also ensures that the washing and sanitary arrangements are in first class order. One of the picture-houses in the Division is used for demonstration purposes in the Heating and Ventilation Section of the D.P.H. and Health Visitors Courses, and the management are always delighted to welcome the students. Supervision of such premises is essential for the health of the patrons, and it is satisfactory to report that it was not necessary to make any complaints.

Tents, Vans and Sheds.—The sites in the Division are well maintained, and no exception was taken to any of the applications for renewal.

Disinfection of Library Books.—Part of a sanitary inspector's duty in a house where infectious disease has occurred is to enquire

if there are any library books, in which case he asks that they be delivered to the district office of the Health Department where arrangements are made to have them disinfected before return to the library for re-issue to the public. The onus for reporting the whereabouts of the book in the interval rests with the borrower. During the year 235 books were dealt with in the Division.

Cockroach Campaign, 1949.—The area experiment carried out in conjunction with the D.D.T. Unit in 1949 has been completely successful. During the past year not one complaint was received from the 320 houses and other premises dealt with. The headlines of the local press, "Health Department Declares War" and "D.D.T. Storms Defences," have indeed proved that area treatment by skilled operators is successful and fully justified.

Rat Destruction.—Statistics by experts give us the undernoted facts :—

The estimated rat population in this country is equal to the human population, roughly fifty million.

One pair of rats is capable of producing a family of twelve to fifteen hundred per year.

Food consumption is estimated at one ounce per rat per day.

These figures give some idea of the magnitude of this problem, and only incessant warfare against the vermin by trapping, gassing and poisoning will reduce the numbers and finally eradicate them. Every possible burrow or harbourage is examined—in the banks of streams, ditches, refuse dumps, industrial premises, sewers, drains, etc. Food premises are particularly liable to infestation, and when they have been effectively dealt with only the greatest care in rat proofing will prevent re-infestation.

During the year 6,394 rats are known to have been killed in the Division.

Insect Infestation (Bugs, Cockroaches, Flies and Snails).—Ashbin shelters and stables were treated by the Fly Control Unit. This in conjunction with the poor summer brought about a marked decrease in the fly population.

A snail complaint gave considerable trouble in a "transferred" Transport property house, every conceivable experiment being tried to eradicate the pest. The D.D.T. Unit were asked to assist the Housing Department, and they experimented with various types of

salt and powders but the snails still survived. Tradesmen pointed walls and sealed every possible known inlet to the house, but this also met with failure. At the time of writing it has been decided to lift the floors in a further attempt to find the means of ingress and the breeding ground.

Bug infestation of 407 houses was carried out and 134 cockroach infestations were dealt with during the year.

Water-storage Cisterns.—To ensure that water-storage cisterns in tenemental properties were clean and well maintained, 230 inspections were made and 76 notices issued, all of which were complied with. The main defects were dirty condition, cisterns unventilated or uncovered.

Inspection of District Regulations.—Little progress was made under this category during the year owing to shortage of necessary staff. The information now being obtained on the specially prepared form is of great value to the department.

Housing (Abandoned Properties).—Several more properties were abandoned by the owners during the year. The danger to public health from this type of property is obvious as, in most cases, they are of the one and two apartment type, densely populated and in considerable disrepair. The cost of repairs to render these houses reasonably habitable would be excessive and meantime, until the local authority have further guidance as to their ultimate disposal, the remedying of nuisance conditions is carried out by the Housing Department on our instructions, the charge being met by the Health and Welfare Department.

Houses added, demolished or closed.—The undernoted tables show the houses added, demolished, or closed during the year.

NEW HOUSES ADDED.

			Size of Houses.				Total
			2 Apts.	3 Apts.	4 Apts.	5 Apts.	
Corporation	—	192	803	47	1,042
Private Builders and by conversion	—	4	21	15	40
Total	—	196	824	62	1,082

HOUSES DEMOLISHED OR CLOSED.

	Size of Houses				Total.	No. of Persons Displaced.
	2 Apts.	3 Apts.	4 Apts.	5 Apts.		
By Health and Welfare Department Represent- ation	1	2	5		8	30
By Dean of Guild ...	28	63	3	1	95	325
Total	<u>29</u>	<u>65</u>	<u>8</u>	<u>1</u>	<u>103</u>	<u>355</u>

In addition to the above, five properties declared dangerous by the Dean of Guild in 1949 were demolished during the year. The number of houses involved was 160, made up of :—

1 Apt.	2 Apts.	3 Apts.	4 Apts.
31	125	3	1

Housing (Scotland) Act, 1935—Rehousing.—"R" Day (Removal Day) came at last for 901 families in the Division. The arrival of the inspector at the old house prior to the removal found the tenants in most cases in the midst of a great upheaval. Furniture was being cleaned, varnished, painted and generally being made to look its very best for the grand new and often long awaited house, with or without a "wee bit of garden," but with all modern conveniences and amenities. Examination of the decrowded houses after re-occupancy produced the facts that overcrowding was abated in 786 cases, reduced in 86, unchanged in 13, and increased in 16.

Rent Restrictions Acts.—A slight reduction in the number of applications was noted during the year, and of the 109 who applied 60 were granted and 49 refused, due to repairs having been completed prior to the claim being lodged before the appropriate Committee. Owners made application on three occasions for reports under the Acts and all were granted when it was ascertained that repairs had been carried out satisfactorily.

Common Lodging Houses.—A number of minor breaches of the bye-laws occur in the conduct of these premises, but no difficulty was experienced in having these remedied.

Shops Survey.—The survey of shop premises is now almost complete, and the necessity for new legislation which would define working standards for heating, sanitary accommodation, hygiene, etc., is very obvious. Nuisances discovered were speedily remedied, and a number

of new water-closets have been installed for both sexes where none existed or insufficient accommodation was previously noted.

Supervision of Rehousing Schemes.—Certain duties in respect of cleanliness and general supervision are imposed on local authorities by the Housing Acts, and during the year the nurse inspectors made 5,677 visits in this respect. In these schemes standards of living vary considerably, some tenants, in fact, having no standards at all. On the whole, the houses are well maintained and the majority require little supervision. In some cases only part of the house is occupied, the people being unable to afford the furnishings necessary for the other rooms. Disrepair in some instances is extensive, frequently due to children being allowed to create damage without parental control. Warnings are usually sufficient to effect an improvement in the hygienic conditions, but written notice is resorted to when necessary. It was found that in the 5,677 visits made, 4,713 houses could be classified as “clean” 946 as “fair,” and 18 as “dirty.”

Verminous Children.—As in former years visits were made to schools, and 10,706 children were submitted for examination, of whom 1,584 (or 6·7 per cent.) were verminous in some degree and 298 were found to be dirty. Effectual representation was made to the parents of these children and, where necessary, advice was given at home on the best method of cleanliness, decontamination and the prevention of re-infestation.

Sanitary Conveniences.—Every house in the Division has an internal water supply and 55 per cent. of the houses have baths. The closing or demolition of unfit and dangerous buildings again reduced the number of water-closets used in common. The following table shows the present position :—

Serving two tenants	...	...	...	...	969	
Serving three tenants	...	...	...	...	1,789	
Serving four tenants	...	...	...	...	987	
Serving five+ tenants	...	...	...	...	258	
					— — — — —	4,003
Houses with baths	...	...	...	...	...	28,268
Dry closets and privy middens	...	...	...	...	...	18
Ashpits	...	...	...	...	...	316

Population.—The population of the Division is estimated at 190,264.

Houses.—The number of houses at 31st December, 1950, is 50,285, distributed during the Wards of the Division as follows :—

Ward.	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 Apts.	Total.
27	1,221	3,389	2,147	544	128	7,429
28	1,030	4,324	1,904	593	372	8,223
29	1,265	4,885	2,082	789	196	9,217
30	629	3,125	2,019	791	170	6,734
31	28	153	3,490	5,313	1,658	10,642
32	123	312	1,275	3,902	2,428	8,040
	<u>4,296</u>	<u>16,188</u>	<u>12,917</u>	<u>11,932</u>	<u>4,952</u>	<u>50,285</u>
Local Authority	...	...	...	...	14,424	
Others	...	...	...	...	35,861	
					<u>50,285</u>	

W. B. EASTON,
Divisional Sanitary Inspector.

OFFENSIVE TRADES.

There was one addition during the year to the 52 offensive trades on the register at the end of 1949. This was a new tallow melter's business in the Eastern Division where 42 of the City's offensive trades are now situated.

The nature of these businesses is shown in the following statement :—

Bone Boilers	...	...	...	...	6
Tallow Melters	...	...	...	...	14
Manure Manufacturers	...	...	...	...	3
Gut Cleaners	...	...	...	...	3
Hide and Skin Factors	...	...	...	...	9
Soap Boilers	...	...	...	...	5
Tanners	...	...	...	...	9
Glue and Size Manufacturers	...	...	...	...	1
Horse Slaughterers	...	...	...	...	1
Knackers	...	...	...	...	1
Blood Boilers	...	...	...	...	1
					<u>53</u>

DISINFECTION.

The following table summarises the washings and disinfections carried out at Ruchill and Belvidere Disinfecting Stations during the year 1950 :—

	Belvidere.	Ruchill.	Total.
Number of washings	7,458	9,489	16,947
Average number per day	24·7	30·9	55·6
Articles washed and disinfected	248,739	323,733	572,472
Average number of articles per washing	33·3	34·1	33·8
Fuel consumed (tons)	514	499	1,013
Fuel used per article (lbs.)	4·67	3·46	4·06
Soap and powder used per article (ozs)	0·19	0·22	0·20
Disinfectant used per article (ozs.)	0·71	0·70	0·70

*Number of Washings, Articles Disinfected, etc.,
for Years 1938-1950 Inclusive.*

	Washings.	Articles.	Houses, etc., Disinfected.	White- washings.	Library and School Books Disinfected.
1938 ...	19,088	665,641	12,457	2	1,602
1939 ...	18,189	681,074	10,419	—	1,550
1940 ...	26,780	841,572	12,427	14	1,346
1941 ...	25,106	903,562	10,494	4	1,319
1942 ...	27,095	104,945	11,101	1	1,956
1943 ...	24,981	894,119	11,207	1	2,004
1944 ...	23,513	803,748	11,056	1	1,763
1945 ...	21,756	742,306	10,840	—	1,498
1946 ...	19,623	646,690	9,430	2	3,026
1947 ...	19,680	610,506	9,796	5	1,618
1948 ...	18,714	643,940	10,103	4	1,647
1949 ...	16,622	607,452	7,005	5	1,564
1950 ...	16,947	572,472	6,766	5	1,126

Disinfection of Second-hand Clothing.—During 1950, there was again an increase in the number of disinfections carried out by this Department. The bulk of traffic was with Southern Rhodesia and the Belgian Congo. Consignments to Southern Rhodesia were dis-

infected by steam (under pressure) as required by the Rhodesian Authorities, and goods sent to the Belgian Congo were treated with a concentration of Formalin sufficient for disinfestation and disinfection purposes.

In the case of second-hand clothing for Eire, this trade has slightly increased this year and goods disinfected with Formalin and Naphthalene in accordance with Article 20 of the Infectious Disease Regulations, 1948, made by the Government of Eire, are being exported regularly.

The number of disinfections was 737 but in most instances these disinfections covered various consignments. The number of individual certificates issued was greater than in 1949 with a corresponding rise in amount of fees paid which reached the total of £755 6s. 3d.

SECTION XIII.

OCCUPATIONAL HEALTH.

During 1950 a special investigation was carried out in a building trades factory in which there was an incidence of oil dermatitis among employees. The factory is engaged in the precasting of concrete house components. This industry has enlarged in the past few years, and the widely accepted practice involves the use of wooden and metal moulds, each of which is lined with oil before casting is carried out.

In this factory it was found that out of 48 men employed 33 showed evidence of skin lesions due to contact with oil. As might be expected, some of the men were more exposed to oil than others because of the nature of their work. Those engaged in oiling the moulds showed greater evidence of contact than some of the other employees. The skin lesions appeared to develop quite soon after commencing the oiling jobs. These lesions were most prevalent on the forearms, arms, shoulders, front of thighs and buttocks. The number and form of lesions varied with the particular work of the employee. Chemical and physical analyses of the oils in use revealed that they contained certain elements which lead to skin reactions. By substituting oils lacking in this component the incidence of skin conditions has been reduced. Recommendations made to the employers for complete prevention of such skin conditions are in process of being tried out.

Two investigations were conducted into the incidence of dermatitis of the hands and forearms in cleaners in two institutions. At one clinic the skin condition was traced to the overuse of phenol disinfectants on rubber flooring. In the other instance the lesions occurred in successive workers in one section of the premises. The lesions produced were of the weeping eczematous type with patchy scaliness. In a period of eighteen months some eight women cleaners had developed lesions of such a degree as to necessitate absence from work.

Women employed in other parts of the building and doing exactly the same work were free from skin trouble. The cleaning materials used were carefully analysed chemically but no skin irritants were found to be present. The floor covering of the section where the employee developed skin trouble was of rubber whereas elsewhere other forms of flooring were used. Analysis of the rubber flooring showed the presence of materials known to be skin irritants and these were found to be present in the scum of the washing water. The

adoption of suggestions made to prevent recurrence of the trouble have resulted in no further cases of skin trouble during the past four months.

As in the previous two years the Occupational Health Unit undertook the medical examinations of entrants to the Corporation Superannuation Scheme and to the Manual Workers' Sick Pay Scheme. This service covers all Corporation departments with the exception of Transport, Police and Fire Departments. Various outside authorities take advantage of this scheme. The total examinations are shown in the following table :—

TABLE I.—DISTRIBUTION INTO DEPARTMENTS AND SCHEMES.

Department	Superannuation		Sick Pay		Entrance		Retiral		Special		Grand Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Art Galleries and Museums ...	2	3	—	—	—	1	—	—	—	—	2	4
Baths ...	30	13	—	—	—	—	3	—	—	—	33	13
Blind Asylum ...	4	2	—	—	—	—	—	—	—	—	4	2
Children's ...	6	15	—	—	—	2	—	—	—	—	6	17
City Analyst ...	1	—	—	—	1	—	—	—	—	—	2	—
City Assessor ...	1	9	—	—	5	10	—	—	—	—	6	19
City Chamberlain ...	7	14	—	—	4	6	1	—	—	—	12	20
City Factor's ...	12	1	—	—	5	4	—	—	—	—	17	5
Civil Defence ...	—	—	—	—	—	—	—	—	—	—	—	—
Cleansing ...	135	2	120	—	—	3	9	—	—	—	264	5
Curator's ...	1	5	—	—	—	—	—	—	1	—	2	5
Education ...	116	141	—	134	9	47	—	3	—	—	125	325
Gas Board ...	14	5	84	—	22	4	4	—	1	—	125	9
Halls ...	4	2	—	—	—	1	—	—	—	—	4	3
Highways ...	58	—	65	1	—	—	—	—	7	—	130	1
Housing ...	204	2	65	3	3	12	—	—	1	—	273	17
Libraries ...	5	30	—	8	8	49	—	—	—	—	13	87
Lighting ...	—	—	—	—	—	1	—	—	—	—	—	1
Lord Provost's ...	1	—	—	—	—	—	—	—	—	—	1	—
Markets ...	12	—	—	—	1	—	—	—	—	—	13	—
Outside Authorities ...	2	3	—	—	—	—	—	—	—	—	2	3
Parks ...	60	3	55	1	—	—	2	—	—	—	117	4
Police ...	—	—	—	—	—	1	—	—	—	—	—	1
Printing ...	4	7	—	—	—	1	—	—	—	—	4	8
Probation ...	4	—	—	—	—	1	—	—	—	—	4	1
Public Health ...	56	5	1	1	5	—	2	—	1	—	65	6
Public Works ...	29	1	14	—	2	3	1	—	2	—	48	4
Registrars ...	—	1	—	—	2	1	—	—	—	—	2	2
Sewage ...	15	1	4	—	—	—	—	—	5	—	24	1
Town Clerk's ...	2	8	—	—	4	3	—	—	2	—	8	11
Water ...	60	1	18	—	4	2	1	—	—	—	83	3
Weights and Measures	3	—	—	—	—	—	1	—	—	—	4	—
Welfare ...	—	1	—	—	—	—	—	—	—	—	—	1
Veterinary Inspector's	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total ...	848	275	426	148	75	152	24	3	20	—	1,393	578

Out of a total of 1,971 examinations during the year 1950, 129 people were rejected as medically unfit for entry to the particular scheme, but in many instances the rejected applicants were, after treatment either by their own doctor or specialist, later admitted (in very few cases were these persons certified as unfit for employment). The number of candidates finally rejected represents 6.54 per cent. of the total examined.

The totals rejected are shown below under the heading of disease.

TABLE 2.

	Males.	Females.
Pulmonary Tuberculosis	12	4
Other Tuberculosis (including Lupus) ...	2	—
Chronic Bronchitis	5	—
Other Lung Disease (including Cancer and Bronchiectasis)	3	2
Silicosis	2	—
Heart Disease	8	2
High Blood Pressure	4	1
Peptic Ulcer	9	—
Hernia	8	—
Varicose Veins	22	5
Ear Conditions	21	2
Osteomyelitis (late stage)	1	—
Bazin's Disease	—	1
Iron Deficiency Anaemia	—	2
Detached Retina (History of)	2	1
Dermatitis	1	1
Psychiatric	2	—
Thyroid	—	1
Poor Foot Circulation	1	—
Fracture	1	—
Cystitis (chronic)	1	—
Epilepsy	1	—
Diabetes (uncontrolled)	1	—
Total	107	22
Grand Total	129	
Percentage Rejected	6.54	
No. of X-ray Examinations	1,352	

During the year, 1950, medical information about all cases examined was coded on Hollerith Cards. The numbers examined are so far too small for a comprehensive survey but information taken was coded by Social Class, Sex and five-yearly Age Groups.

An example of the information coded is shown in the following tabulation of Systolic Blood Pressure and Visual Acuity readings for males.

TABLE 3.
BLOOD PRESSURES—MALES.
FREQUENCY DISTRIBUTIONS.

Age Group	SYSTOLIC BLOOD PRESSURES										Total
	90-	100-	110-	120-	130-	140-	150-	160-	170-	180-	
15-	—	1	9	46	23	11	3	2	—	—	95
20-	2	—	14	68	76	35	14	3	—	—	212
25-	—	1	14	50	63	35	17	2	—	—	182
30-	2	1	6	39	55	46	7	1	—	—	157
35-	—	2	15	54	64	53	24	7	2	1	222
40-	1	—	5	49	53	58	27	14	5	3	215
45-	—	—	—	13	27	31	11	8	5	4	99
50-	2	—	1	6	13	8	11	12	7	7	67
55-	1	1	1	2	13	14	19	11	6	9	77
60-	1	—	1	2	10	12	14	9	9	9	67
Total	9	6	66	329	397	303	147	69	34	33	1,393

TABLE 4.
MALES—SYSTOLIC BLOOD PRESSURE (MM. HG.).

Age (Years)	No.	Mean	Standard Error	Standard Deviation	Coeff. of Variation	Range
15-	95	130.26	± 1.114	10.86	8.338	100-170
20-	212	133.49	± 0.7718	11.26	8.434	90-170
25-	182	134.67	± 0.8747	11.80	8.765	100-170
30-	157	135.06	± 0.8701	10.90	8.074	90-170
35-	222	136.93	± 0.883	13.16	9.6118	100-190
40-	218	140.86	± 0.9882	14.59	10.36	90-190
45-	99	145.50	± 1.534	15.25	10.484	120-190
50-	67	151.86	± 2.57	21.09	13.89	90-190
55-	77	153.701	± 2.12	18.60	12.13	90-190
60-	67	155.89	± 3.07	24.62	15.794	90-190
Total	1,393	139.23	± 0.419	15.65	11.241	90-190

While it is appreciated that no major conclusions can be drawn from the above tables without reference to the corresponding values of the diastolic pressures, the method of coding permitted only of the recording of the latter values where they exceeded 100 mms. Hg. In only four instances was the diastolic pressure in excess of this figure.

TABLE 5.
MALES—VISUAL ACUITY.

Age Group	No. in Group	RIGHT EYE							
		$\frac{6}{6}$	$\frac{6}{9}$	$\frac{6}{12}$ - $\frac{6}{18}$	$\frac{6}{24}$ - $\frac{6}{36}$	$\frac{6}{60}$	No Vision	Correctable to	
								$\frac{6}{9}$	$\frac{6}{18}$
15-	95 100%	70 73.68%	7 7.37%	3 3.15%	6 6.31%	2 2.105%	— —	5 5.26%	2 2.105%
20-	212 100%	144 67.92%	28 13.21%	16 7.55%	10 4.71%	— —	— —	12 5.66%	2 0.943%
25-	182 100%	108 59.33%	30 16.48%	18 9.89%	9 4.94%	— —	1 0.55%	11 6.04%	5 2.74%
30-	157 100%	104 66.23%	17 10.82%	11 7.106%	5 3.184%	— —	2 1.273%	13 8.279%	5 3.184%
35-	219 100%	120 54.80%	39 17.80%	33 15.06%	9 4.11%	— —	1 0.46%	10 4.56%	7 3.19%
40-	215 100%	115 53.48%	29 13.48%	31 14.42%	17 7.90%	— —	1 0.46%	20 9.30%	2 0.93%
45-	99 100%	38 38.38%	17 17.17%	29 29.28%	7 7.07%	— —	1 1.01%	5 5.05%	2 2.02%
50-	66 10%	17 25.75%	9 13.63%	12 18.18%	10 15.15%	2 3.028%	3 4.544%	9 13.636%	4 6.06%
55-	76 100%	13 17.104%	13 17.104%	25 32.89%	12 15.78%	1 1.352%	— —	8 10.52%	4 5.26%
60	66 100%	10 15.15%	10 15.15%	19 28.78%	14 21.21%	2 3.03%	5 7.57%	5 7.57%	1 1.51%
Total	1,387 100%	739 53.27%	199 14.34%	197 14.20%	99 7.136%	7 0.504%	14 1.096%	98 7.064%	34 2.45%

$$X(\chi)^2 = 249.7$$

$$n = 63$$

$$\text{Value of } \sqrt{2X^2 - 1} = 11.15$$

Greatly significant

N.B.—Method of Coding accounts for difference in totals, e.g., abnormalities found were coded as detached retina, cataract, etc., to the exclusion of visual acuity.

TABLE 6.
 MALES—VISUAL ACUITY.

Age Group	No. in Group	LEFT EYE						Corrected Vision	
		$\frac{6}{6}$	$\frac{6}{9}$	$\frac{6}{12}$ - $\frac{6}{18}$	$\frac{6}{24}$ - $\frac{6}{36}$	$\frac{6}{60}$	No Vision	$\frac{6}{9}$	$\frac{6}{18}$
15-	95 100%	72 75.70%	9 9.40%	4 4.20%	2 2.10%	— —	— —	5 5.26%	3 3.55%
20-	212 100%	144 67.92%	22 10.37%	18 8.49%	10 4.71%	— —	2 0.94%	13 6.13%	3 1.40%
25-	182 100%	119 65.38%	26 14.28%	16 8.79%	4 2.19%	— —	1 0.55%	12 6.59%	4 2.19%
30-	157 100%	100 63.69%	22 14.00%	13 8.27%	4 2.54%	— —	— —	12 7.64%	6 3.82%
35-	220 100%	124 53.36%	32 14.54%	38 17.26%	8 3.63%	1 0.45%	1 0.45%	11 5.00%	5 2.27%
40-	214 100%	122 56.99%	27 12.60%	28 13.08%	13 6.07%	— —	1 0.46%	21 9.81%	2 0.93%
45-	99 100%	43 43.43%	20 20.20%	27 27.26%	1 1.01%	— —	1 1.01%	4 4.03%	3 3.02%
50-	65 100%	15 23.07%	9 13.84%	16 24.61%	7 10.77%	3 4.61%	3 4.61%	8 12.31%	4 6.15%
55-	75 100%	13 17.30%	16 21.30%	23 30.60%	10 13.30%	— —	2 2.60%	8 10.66%	3 4.00%
60-	66 100%	10 15.14%	10 15.14%	18 27.26%	15 22.71%	2 3.02%	5 7.57%	5 7.57%	1 1.51%
Total	1,385 100%	762 55.02%	193 13.93%	201 14.51%	74 5.34%	6 0.42%	16 1.15%	99 7.15%	34 2.45%

SECTION XIV.

WELFARE SERVICES.

RESIDENTIAL ACCOMMODATION.

During the year an additional home for the aged was opened and negotiations were instituted for the acquisition of further houses suitable for adaptation.

Tayford.—In October, 1950, this Home for the care of old people was opened by the Lord Provost. It was formerly a private hotel and is situated at 33 Newark Drive, Pollokshields. Accommodation is provided for 24 residents—one single bedroom, four bedrooms for two, and five bedrooms for three—with two lounges, a dining-room, and a conservatory and smoke-room. The Home is furnished throughout in light oak, the interior decoration being in sunshine colourings and the whole effect being of light, space and brightness. Wash-hand basins have been installed in each bedroom and the general layout is on lines similar to Woodburn. The Home is staffed by Joint Superintendents, a cook, and two daily domestics. The number in residence at 31st December was 19.

The ready acceptance of these Homes in the neighbouring community is evidenced by the fact that the Directors of Titwood Bowling Club extended to the residents in Tayford the hospitality of their grounds.

Woodburn.—The hostel, opened in April, 1948, continues to provide accommodation for 28 aged persons in six single, five double rooms, and four rooms for three. Each resident has the exclusive use of a wardrobe, dressing-table and single bed, wash-hand basins and comfortable chairs being provided in each bedroom. Lounges and a smoke annexe are available and the health of the residents, although the average age is over 77 years, has been consistently good, and the accommodation fully occupied.

Crookston Home.—The Main Home and Annexe provide accommodation for 356 persons, while there are 72 cottages for single persons and 32 for couples.

In the Main Home the accommodation is provided in wards and the residents there are the less active old people who require more care and attention than can be provided in the small hostels, Tayford and Woodburn, or in the cottages or annexe. The 14 single rooms in the Annexe have been occupied without break since this extension was opened in April, 1950. There has been only one change where one resident was not sufficiently fit and was transferred to the Main Home.

On 31st December the residents at Crookston numbered 327 in the Main Home, 112 in the Cottages, and 14 in the Annexe, a total of 453.

During the year a number of the woman residents formed a branch of the Church of Scotland Woman's Guild. Meetings are held fortnightly to which guest speakers are invited and a Sale of Work was arranged in November by the members of the Guild, when the sum of £40 was raised. This has been distributed partly by a donation to the objects of the Church of Scotland Woman's Guild and partly by the purchase of Bibles for the use of residents at church services in the Home.

Crookston residents elect their own Bowling Committee and their own Social and Recreation Committee. The Bowling Committee arrange matches against other clubs at Crookston and at other bowling greens. The Social Committee arrange various recreations such as whist drives, small concerts amongst themselves, domino tournaments, draughts tournaments, etc.

Foresthall.—The following excerpt from the "Glasgow Herald" of 3rd July, 1950, under the heading "100 Years Ago" is of interest :—

"The extensive premises near Barnhill at present erecting as a work and rest house for the paupers of the Barony Parish are rapidly approaching completion. Already one section of the building, affording ample accommodation for nearly 400 inmates, has been made available and the above number of paupers are now lodged and fed in the house." "Time marches on."

As a result of their age the buildings are not very suitable for adaptation to modern requirements but progress is being made with substantial redecoration of wards and the installation of additional and more modern toilet facilities. As additional hostel accommodation becomes available the number of beds in wards at Foresthall is being progressively reduced and improved amenities such as additional sitting-room accommodation provided.

At 31st December there were 1,199 residents in Foresthall, of whom 623 were hospital patients accommodated on behalf of the Western Regional Hospital Board. This hospital portion was the first portion to be redecorated and modernised on account of the urgent demands immediately following the war years for accommodation for chronic sick people. There are 642 hospital beds in Foresthall at the disposal of the Western Regional Hospital Board.

A bowling green is also available at Foresthall but is not in such great demand amongst the residents as the one at Crookston.

At all Eventide Homes, books, newspapers, etc., are available for the residents and at Crookston and Foresthall the Corporation arrange fortnightly concerts during the winter months and these are broadcast through the Homes' relay system so that any resident who may be confined to bed or unable to proceed from the ward to the central hall may also enjoy the entertainment. Cinema shows are also available fortnightly, the films being shown in the various wards in rotation and on the same evening in the hall of the Home. Outings are also arranged, transport being provided by the Department, who were indebted to the Managements of the Theatre Royal, the Citizen's Theatre, the Metropole Theatre, the Kelvin Hall, the Barrhead Players, and to Francis Gay of the "Sunday Post," who all made seats available for their various entertainments. Through their generosity, almost 1,000 seats have been made available for various entertainments and the residents in all four Homes participated in these outings.

It is hoped to develop occupational activities amongst the residents in the Homes and a start was made by the introduction of paper-flower and rug making last year at Woodburn. This has proved popular amongst the residents and plans are meantime being formulated to extend the introduction of various activities in all Homes. The women residents at Woodburn were provided with wool and knitted sufficient socks to provide one pair for each male resident as a Christmas present and additional socks were distributed to the Boer War Veterans resident in Foresthall as Christmas gifts from the women residents of Woodburn.

The following table shows the numbers in residence in each of the four Homes at the end of each month during 1950.

Month.	FORESTHALL. Residential and Temporary Accom- modation.			CROOKSTON.				WOOD- TAY- BURN. FORD.	
	Hospital.		Total.	Main Cottages.	Annexe.	Total.			
31/1/50	629	523	1,152	328	107	—	435	28	—
28/2/50	623	548	1,171	330	111	—	441	27	—
31/3/50	626	548	1,174	325	113	—	438	28	—
30/4/50	619	546	1,165	326	113	6	445	28	—
31/5/50	618	576	1,194	328	114	11	453	28	—
30/6/50	621	588	1,209	330	115	12	457	28	—
31/7/50	619	584	1,203	318	116	13	447	27	—
31/8/50	618	593	1,211	319	116	13	448	28	—
30/9/50	617	606	1,223	323	114	14	451	27	—
31/10/50	617	616	1,233	333	112	14	459	28	12
30/11/50	625	609	1,234	323	113	14	450	26	17
31/12/50	623	576	1,199	327	112	14	453	27	19
Lowest	617	523	1,152	318	107	6	435	26	12
Highest	629	616	1,234	333	116	14	459	28	19

In all, 889 applications have been received for admission to Corporation Eventide Homes. In addition, 187 applications have been made for supplementation of payment for maintenance in respect of persons admitted to Homes managed by voluntary organisations.

Temporary Accommodation.—The question of accommodating homeless families who do not directly come within the category designated in the National Assistance Act as persons in urgent need of temporary accommodation, “being need arising in circumstances which could not reasonably have been foreseen,” has been a matter of deep concern to the Committee during the year. A Joint Sub-Committee of the Health and Welfare, Children’s and Housing Committees have been considering this problem and steps are being taken to improve the conditions which have been created by the accommodation in Foresthall of homeless women and children. In many cases these families have been evicted on account of non-payment of rent and the remainder are persons who have never had homes of their own and have been evicted from lodgings, from homes of relatives, or from property where they were squatters.

The number of such families reached the highest point at the end of October when there were 35 women and 98 children in residence but this was reduced to 23 women and 73 children by the end of December. The number of these "homeless" women and children accommodated at the last day of each month during the year was as under :—

Date.			Women.	Boys.	Girls.	Total Children.
31/1/50	...	...	8	16	20	36
28/2/50	...	...	11	22	27	49
31/3/50	...	...	17	33	30	63
30/4/50	...	...	15	27	26	53
31/5/50	...	...	28	41	36	77
30/6/50	...	...	32	46	42	88
31/7/50	...	...	30	44	40	84
31/8/50	...	...	28	44	42	86
30/9/50	...	...	27	49	37	86
31/10/50	...	...	35	51	47	98
30/11/50	...	...	32	48	47	95
31/12/50	...	...	23	33	40	73
Lowest ...	...	...	8	16	20	36
Highest ...	...	...	35	51	47	98

There were no incidents during 1950 which resulted in persons requiring accommodation on account of need arising in circumstances which could not reasonably have been foreseen.

Persons without a Settled Way of Living.—Persons without a settled way of living accommodated on behalf of the National Assistance Board averaged not more than four per night over the year.

Welfare Services for the Handicapped.—A central index of the blind was completed during the year and since then almost 2,000 visits were made to blind persons. All changes in the register are recorded and records passed to the Transport Department to facilitate the issue of travel passes to blind persons. Additional visits have been made at the request of various parties, such as neighbours, friends, etc., to blind persons living alone and in suitable cases arrangements have been made for the services of domestic helps. Following representation to the Rehabilitation Officer of the Ministry of Labour, two blind men were placed in employment.

The agreement with the Outdoor Mission to the Blind, under which the Mission act as agents of the Corporation in connection with home teaching and certain welfare services, is operating satisfactorily. Arrangements were again made for rehearsal accommodation for a Blind Male Voice Choir from the Royal Glasgow Asylum for the Blind.

The After-Care Section referred to in last year's report is now operating, an establishment of one After-Care Officer, four Assistant After-Care Officers and clerical staff having been approved by the Corporation. One Health Visitor has been seconded to this section as After-Care Officer and two assistants have been appointed along with the Senior Clerkess.

Officials of the Glasgow Association for the Welfare of the Handicapped have been most co-operative and the names of all children who had left special schools from July, 1948, were provided by that Association. Contact has been made with the teachers in all special schools, with the Junior Occupation Centres and Youth Employment Officers, and arrangements generally made with the various authorities and organisations interested in such handicapped children, whereby overlapping has been reduced to a minimum and their work co-ordinated.

Premises at Carlton Place were adapted for use as a Senior Occupation Centre for boys.

The most important feature of the work of this section is the home visitation and each member of the staff is conscious of the importance of this personal contact, not only with the person under care but with the whole family in the home.

Negotiations are still proceeding with the Mission to the Adult Deaf and Dumb and with the St. Vincent After-Care Society regarding arrangements between the Corporation and these organisations for the provision of welfare services in terms of Section 29 of the National Assistance Act.

Contributions to Old People's Organisations.—Section 31 of the National Assistance Act authorises local authorities to make contributions to voluntary organisations providing meals or recreations for

old people and the Health and Welfare Department during the year authorised grants of equipment (in one case furniture but principally crockery, tea urns, kettles, etc.) to 11 old folk's clubs at a total cost of £121.

Registration and Inspection of Old Persons' Homes.—By virtue of the powers contained in the National Assistance Act, 1948, the National Assistance (Registration of Homes) (Scotland) Regulations were made by the Secretary of State and came into operation on 1st November, 1949. Under these regulations the Local Authority is required to inspect and register Homes, the sole or main object of which is the provision of accommodation for aged persons or for the blind, crippled, or deaf and dumb. The Regulations do not apply to certain categories, such as hospitals, nursing homes registered under the Nursing Homes Registration (Scotland) Act of 1938, premises managed by Government departments and Local Authorities, and certain institutions coming under the Mental Deficiency Acts and the Children and Young Persons (Scotland) Act of 1937.

During the year 11 such Homes which provided accommodation for 531 persons were inspected in co-operation with the City Engineer. In six cases registration was recommended and granted, while in the remaining five registration was delayed pending the installation of satisfactory fire escape and fire prevention arrangements. In each of these cases the necessary adaptations are in the process of being effected. All these Homes were in existence before the coming into force of the Regulations, no new institution in this category being provided during the year.

Registration of Charities.—Two charities whose principal objects were the promotion of the welfare of disabled persons were registered during the year in terms of Section 41 of the National Assistance Act which extended the War Charities Act of 1940.

Compulsory Removal of Persons in Need of Care and Attention.—Section 47 of the National Assistance Act authorises the removal, on the certificate of the Medical Officer of Health and with the authority of the Court, to hospital or other suitable accommodation of any person suffering from grave chronic disease or being aged, infirm, etc., and not receiving suitable care and attention. This power is exercised only when it is found impossible to persuade the person to act in his

or her own best interests, and it has not been necessary to make any application to the Court during the year.

Temporary Protection of Property of Persons Admitted to Hospital.—Where no other suitable arrangements are made for the protection of the property of a person admitted to hospital or other institution, it is the duty of the Local Authority to protect the property. This duty extends only to movable property which, when necessary, is removed by the Department to safe storage and returned to the owner on discharge from hospital or to his legal representative. The movable property includes not only personal belongings, e.g., jewellery and personal documents but also household furniture for which storage provision requires to be made.

Burial or Cremation.—Arrangements are made by the Welfare Section for the burial of any person who has died or has been found dead in the city and no suitable arrangements are being made otherwise. Cremation is only arranged where it is known that the deceased person so desired. Burials are always undertaken with fullest respect and consideration and efforts are always made to contact anyone who might be interested in the interment of a particular deceased.

During the past year 279 burials were arranged by the Department and in 42 cases claims were lodged with the Ministry of National Insurance for Death Grant in terms of Section 22 (v) of the National Insurance Act, 1946.

Mental Defectives and Mental Patients.—Under the National Health Service (Scotland) Act, 1947, Local Authorities were relieved of the responsibility for the provision of institutional accommodation for certified mental patients and mental defectives, this becoming the responsibility of the Regional Hospital Boards. When certified mental patients are boarded-out under guardianship this is deemed to be an extension of the hospital service but arrangements have been made under which the placing and supervision of those boarded-out mental patients continues to be undertaken by the Department's officers, the cost being repaid by the Regional Hospital Boards.

The number of mental patients and mental defectives on the boarded-out rolls increased from 1,329 at January, 1950, to 1,374 at December, 1950. Of the latter number, 154 were mental patients and 1,220 mental defectives. There are unfortunately many ineducable mental defectives on the waiting lists for accommodation in certified

institutions and the inability of the Regional Hospital Boards to provide a sufficient number of beds to accommodate even the urgent cases is much to be regretted.

Investigations.—Investigations are undertaken by the Welfare Section on behalf of other sections of the Department, e.g., Child Welfare and Domestic Help, and on behalf of the Education Department in connection with the supply of food, clothing, etc., and the City Chamberlain's Department (Collector's Section) in connection with applications for relief of rates. Investigations are also undertaken on behalf of the Committee of the Clydeside Air Raids Distress Fund and special investigations are undertaken on behalf of the Lord Provost. During the past year such investigations numbered as under :—

On behalf of the—

Education Department	...	...	...	...	9,559
City Chamberlain (Collector's Section)	...	...	...	...	202
Child Welfare Section of the Department	...	...	...	...	385
Domestic Help Section of the Department	...	...	...	...	5,805
Clydeside Air Raids Distress Fund	...	...	...	...	271
Lord Provost	...	...	...	...	651

Distribution of Gift Food.—Arrangements were made by the Department on behalf of the Lord Provost to entertain in the City Chambers on 18th December 300 aged women and on 22nd December a similar number of aged men. Afternoon tea was served, a concert provided, and each person attending received a parcel of overseas gift food. Similar arrangements were made on 29th December when the Lord Mayor of Sydney, Alderman O'Dea, was present and made a distribution of Australian gift food to 300 aged and disabled persons. This distribution was from the last consignment of gift parcels, numbering just over 3,000, to be sent from Australia, and the balance was distributed early in 1951, principally to old people.

During the year ending December, 1950, the Department distributed gift food from overseas to almost 6,000 people. In addition, delivery of 62 cases of foodstuffs was accepted by the Department from the Commonwealth Gift Centre, London, on behalf of various churches and organisations in the city to whom these parcels were specifically destined and these were passed on to the various bodies for distribution to individuals.

Catering.—The catering in the Restaurant at Kelvin Hall is undertaken by the Department, the number of meals served during 1950 being as follows :—

Main Meals	...	...	...	252,787
Light Meals	...	...	...	933,878
Total	...	...	...	<u>1,186,665</u>

Crookston Cooking Depot supplied meals for the School Meals Service numbering approximately 7,000 per week, for the Meals-on-Wheels Service operated by the Women's Voluntary Service to the extent of 220 meals per week, and for certain canteens of the Housing Department approximating 250 per week. The Buffet Service was provided by this Section for the dances organised by the Halls Department in the St. Andrew's Halls on Monday and Saturday evenings, approximately 800 being served weekly, and catering was also undertaken on behalf of the various Corporation departments at staff functions, etc.

Clothing Store.—The Clothing Store, in addition to supplying the needs of mental defectives, etc., maintained by the Department, also operates an arrangement with the National Assistance Board for the supply of clothing under the Board's special needs provisions. The Clothing Store is also responsible for supplying and issuing clothing on behalf of the Children's Department to boarded-out children and for the dressing of these children prior to travelling to the homes of guardians. The value of the clothing distributed during the year was well over £100,000.

SECTION XV.

LEGISLATION.

The following Acts of Parliament, Regulations, etc., dealing directly with Public Health in Scotland or having a bearing thereon came into operation during the year:—

Adoption Act, 1950.—Consolidates the enactments relating to the adoption of children.

Diseases of Animals Act, 1950.—Consolidates the Diseases of Animals Acts, 1894 to 1937 and certain other enactments relating to diseases of animals.

Housing (Scotland) Act, 1950.—Consolidates the Housing (Scotland) Acts, 1925 to 1949, and certain other enactments relating to housing in Scotland.

Medical Act, 1950.—Is primarily concerned with medical education, the composition of the General Medical Council and the revision of the disciplinary procedure under the Medical Acts.

Midwives (Amendment) Act, 1950.—Amends the law relating to midwives and also provides for the recognition in England and Scotland of midwives trained in either of these countries or in Northern Ireland.

Shops Act, 1950.—Consolidates the Shops Acts, 1912 to 1938, and certain other enactments relating to shops.

CIRCULARS, ORDERS, REGULATIONS, ETC., ISSUED IN 1950.

S.I. = Statutory Instrument. *D.H.S.* = Department of Health.

M.F. = Ministry of Food.

Census—*S.I.* 2034/S.134 of 14/12/50—Census (Scotland) Regulations.

Civil Defence—

D.H.S. Memo. E.V.S. 1. April, 1950. Short Term Plan for Evacuation.

D.H.S. Circular 22/1950 of 18/4/50. Evacuation of the Civil Population.

D.H.S. Circular 23/1950 of 18/4/50. Billetting in Wartime.

D.H.S. Circular 24/1950 of 18/4/50. Care of the Homeless.

D.H.S. Circular 78/1950 of 11/8/50. Care of the Homeless.

M.F. Circular E.F.A./1 (Scot.) of 22/8/50. Civil Defence Act, 1948. Emergency Feeding.

Factories and Workshops—

S.H.W. 803106/25 of 1/6/50. The Local Authorities (Transfer of Enforcement) (Amendment) Order, 1950.

S.I. 842/1950 of 23/5/50. The Local Authorities (Transfer of Enforcement) (Amendment) Order, 1950.

Food—

- S.I. 589/50 of 6/4/50. The Food Standards (Fish Cakes) Order, 1950.
 D.H.S. Circular 34/1950 of 2/5/50. Food Hygiene.
 M.F. Circular 10/50 (U.K.) of 12/6/50. The Food Substitutes (Control) Order, 1941.
 S.I. 1056/1950 of 26/6/50. Food Standards (Preserves) (Amendment) Order, 1950.
 S.I. 1061/1950 of 27/6/50. The Labelling of Food Order, 1950.
 M.F. Circular 12/50 (U.K.) of 3/7/50. The Labelling of Food Order, 1950.
 M.F. Circular 13/50 (U.K.) of 31/7/50. Mineral Oil in Food (Amendment) Order, 1950.
 S.I. 1239/1950 of 26/7/50. Mineral Oil in Food (Amendment) Order, 1950.
 M.F. Circular 15/50 (U.K.) of 16/8/50. Vinegar and Solution of Acetic Acid.
 S.I. 1871/1950 of 22/11/50. The Food Standards (Preserves) (Amendment) (Commencement) Order, 1950.

Housing—

- D.H.S. Circular 104/1950 of 14/11/50. Housing (Scotland) Act, 1950.

Infectious Disease—

- S.I. 157/S.11 of 26/1/50. Public Health (Aircraft) (Scot.) Regulations, 1950.
 D.H.S. Circular 8/1950 of 6/2/50. Public Health (Aircraft) (Scotland) Regulations, 1950.

Maternity and Child Welfare—

- D.H.S. Circular 21/1950 of 23/3/50. Conference on the Scottish Home Help Service.

Meat Inspection—

- D.H.S. Circular 3/1950 of 11/1/50. 1. Meat Inspection. 2. Unsound Food (Condemnation Certificates for Canned Meat).
 D.H.S. Circular 12/1950 of 15/2/50. Food and Drugs (Whalemeat) (Amendment) (Scotland) Regulations, 1950.
 S.I. 1950 198/S.14 of 6/2/50. Food and Drugs (Whalemeat) (Amendment) (Scotland) Regulations, 1950.
 D.H.S. Circular 16/50 of 2/3/50. Transport and Handling of Meat.
 D.H.S. Foods 254648 of 6/3/50. Imported Food (Scotland) Regulations, 1937 to 1948. Republic of France Official Certificate.
 D.H.S. Foods 316510 of 24/4/50. Imported Food (Scotland) Regulations, 1937 to 1948. Malta. Official Certificate.
 D.H.S. Foods 312545 of 19/6/50. Imported Food (Scotland) Regulations, 1937 to 1948. Eritrea. Official Certificate.
 D.H.S. Foods 316449 of 25/9/50. Imported Foods (Scotland) Regulations, 1937 to 1948. Algeria. Official Certificate.
 D.H.S. Foods 308673 of 8/11/50. Imported Food (Scotland) Regulations, 1937 to 1948. Cyprus. Official Certificate.
 M.F. Circular 21/50 (U.K.) of 27/11/50. Meat Products.
 D.H.S. Foods 255573 of 12/12/50. Imported Food (Scotland) Regulations, 1937 to 1948. Federal Republic of Germany. Official Certificate.

Mental Services—

- Scottish Home Department. Explanatory Memorandum, 1950. Criminal Justice (Scotland) Act, 1949.

Milk—

D.H.S. Memo. 9/46 revised 1950. Scottish Milk Testing Scheme.

National Assistance—

S.I. 940/S.61 of 8/6/50. Accommodation. Charges for Accommodation (Scotland) Regulations.

Explanatory Memorandum (April, 1950) on the Draft National Assistance (Determination of Need) Amendment Regulations, 1950.

National Health Service—

S.I. 498/S.37 of 31/3/50. National Health Service (Scotland) (Superannuation Regulations, 1950.

Nurses—

S.I. 488/S.36 of 30/3/50. General Nursing Council for Scotland. Election Scheme Rules. Approval Instrument.

S.I. 656/S.47 of 21/4/50. Nurses (Scotland) Act, 1949. (Appointed Day) Order.

S.I. 941/S.64 of 7/6/50. General Nursing Council for Scotland (Amendment) Rules, 1950. Approval Instrument.

S.I. 943/S.66 of 7/6/50. General Nursing Council for Scotland (Amendment) Rules, 1950. Approval Instrument No. 2.

S.I. 999/S.74 of 15/6/50. General Nursing Council for Scotland (Amendment) Rules, 1950. Approval Instrument No. 3.

S.I. 1414/S.103 of 21/8/50. General Nursing Council for Scotland (Amendment) Rules, 1950. Approval Instrument No. 4.

S.I. 1415/S.104 of 21/8/50. General Nursing Council for Scotland, Mental Nurses Committee. Election Scheme Rules, 1950. Approval Instrument.

Pharmacy—

S.I. 380 of 20/3/50. Dangerous Drugs Regulations, 1950.

S.I. 1213 of 21/7/50. Poisons List Order.

S.I. 1214 of 21/7/50. Poisons Rules.

Tuberculosis—

D.H.S. Circular 14/1950 of 20/2/50. Public Health (Tuberculosis) Regulations (Scotland), 1950.

APPENDIX

TABLE I.—GLASGOW, 1950.—ESTIMATED POPULATION IN EACH MUNICIPAL WARD, ACREAGE, AND PERSONS PER ACRE.

MUNICIPAL WARDS	POPULATION				Acreage	Persons per acre (including Institutions and Shipping)
	Without Institutions and Shipping	Institu- tions*	Shipping	Total		
1. Shettleston and Tollcross ...	41,899	185	—	42,084	1,167	36
2. Parkhead ...	20,566	595	—	21,161	819	26
3. Dalrnarnock ...	44,566	29	—	44,595	487	92
4. Calton ...	26,743	1,603	—	28,346	404	70
5. Mile-end ...	42,114	373	—	42,487	443	96
6. Dennistoun ...	27,902	—	—	27,902	689	40
7. Provan ...	19,297	1,713	—	21,010	4,846	4
8. Cowlairs ...	29,350	1,259	—	30,609	645	47
9. Springburn ...	25,938	2,749	—	28,687	2,118	14
10. Townhead ...	35,155	2,110	—	37,265	301	124
11. Exchange ...	20,035	3,819	18	23,872	507	47
12. Anderston ...	31,786	1,299	806	33,891	530	64
13. Park ...	24,287	613	—	24,900	317	78
14. Cowcaddens ...	29,236	599	1	29,836	488	61
15. Woodside ...	29,571	513	—	30,084	170	177
16. Ruchill ...	42,144	828	2	42,974	1,962	22
17. North Kelvin	27,300	70	—	27,370	278	98
18. Maryhill ...	24,818	922	4	25,744	2,210	12
19. Kelvinside ...	19,867	1,157	—	21,024	1,160	18
20. Partick (East)	23,975	922	—	24,897	351	71
21. „ (West)	28,612	—	123	28,735	464	62
22. Whiteinch ...	23,455	471	13	23,939	894	27
23. Yoker ...	28,414	312	—	28,726	1,213	24
24. Knightswood	16,174	147	—	16,321	1,614	10
25. Hutchesontown	34,329	29	—	34,358	387	89
26. Gorbals ...	40,241	284	—	40,525	252	161
27. Kingston ...	29,193	266	163	29,622	355	83
28. Kinning Park	30,152	158	245	30,555	402	76
29. Govan ...	36,971	260	—	37,231	489	76
30. Fairfield ...	22,620	1,558	104	24,282	1,351	18
31. Craigton ...	38,568	313	—	38,881	1,566	25
32. Pollokshields	27,548	2,145	—	29,693	3,239	9
33. Camphill ...	23,630	109	—	23,739	481	49
34. Pollokshaws ...	29,177	451	—	29,628	3,223	9
35. Govanhill ...	26,980	510	—	27,490	365	75
36. Langside ...	24,688	1,099	—	25,787	801	32
37. Cathcart ...	21,609	141	—	21,750	2,737	8
CITY ...	1,068,910	29,611	1,479	1,100,000	39,725	28

* Includes "Squatters."

TABLE II.—GLASGOW, 1950.—INHABITED AND UNOCCUPIED HOUSES
IN EACH MUNICIPAL WARD.

MUNICIPAL WARDS	INHABITED HOUSES*				Empty Houses
	1950	1949	Decrease	Increase	
1. Shettleston and Toll- cross... ..	11,030	10,798	—	232	11
2. Parkhead	5,843	5,740	—	103	5
3. Dalmarnock	12,276	12,362	86	—	10
4. Calton... ..	7,138	7,197	59	—	8
5. Mile-end	11,425	11,461	36	—	14
6. Dennistoun	8,282	8,270	—	12	33
7. Provan	5,368	5,360	—	8	13
8. Cowlairs	8,183	8,280	97	—	11
9. Springburn	7,590	6,972	—	618	13
10. Townhead	9,821	9,879	58	—	8
11. Exchange	4,802	4,862	60	—	14
12. Anderston	8,502	8,539	37	—	15
13. Park	6,564	6,640	76	—	46
14. Cowcaddens	7,665	7,720	55	—	6
15. Woodside	8,190	8,299	109	—	19
16. Ruchill	10,487	10,210	—	277	16
17. North Kelvin	8,432	8,459	27	—	36
18. Maryhill	6,992	7,011	19	—	8
19. Kelvinside	7,088	7,126	38	—	107
20. Partick (East)	7,441	7,461	20	—	49
21. „ (West)	8,596	8,631	35	—	9
22. Whiteinch	6,877	6,859	—	18	5
23. Yoker	7,733	7,671	—	62	11
24. Knightswood	4,382	4,367	—	15	2
25. Hutchesontown	9,661	9,681	20	—	8
26. Gorbals	9,420	9,521	101	—	12
27. Kingston	7,422	7,454	32	—	7
28. Kinning Park	8,213	8,241	28	—	10
29. Govan... ..	9,196	9,336	140	—	21
30. Fairfield	6,734	6,674	—	60	—
31. Craigton	10,634	10,601	—	33	8
32. Pollokshields	8,002	6,974	—	1,028	38
33. Camphill	7,959	7,981	22	—	38
34. Pollokshaws	7,517	6,422	—	1,095	5
35. Govanhill	8,461	8,469	8	—	11
36. Langside	8,049	7,835	—	214	14
37. Cathcart	7,063	7,068	5	—	11
CITY	299,038	296,431	—	2,607	652

* Includes inhabitant occupiers.

TABLE III.—GLASGOW.—LININGS GRANTED BY DEAN OF GUILD COURT
IN YEARS FROM 1919 IN RESPECT OF HOUSES.

Year ending 31st August.	NUMBER OF APARTMENTS.						TOTAL.
	1.	2.	3.	4.	5.	6.	
1919-20 (Annual Average)	—	6	692	246	107	29	1,080
1921-25 (do.)	—	308	638	400	234	51	1,631
1926-30 (do.)	—	350	3,067	1,346	448	90	5,301
1931-35	13	349	2,287	1,578	131	23	4,381
1936-39 ...	—	2	6,325	8,559	2,132	98	17,116
1940-43 ...	—	—	—	—	—	—	—
1944 ...	36	—	—	5	1	—	42
1945 ...	—	—	79	94	5	—	178
1946 ...	33	—	812	2,503	483	12	3,843
1947 ...	—	89	115	994	232	—	1,430
1948 ...	54	24	126	365	2	—	571
1949 ...	86	—	780	1,186	13	—	2,065
1950 ...	72	187	1,738	3,513	260	5	5,775

TABLE IV.—ABSTRACT OF METEOROLOGICAL OBSERVATIONS TAKEN AT
SPRINGBURN PUBLIC PARK.

MONTHS.	TEMPERATURE.			RAINFALL.		SUNSHINE Hours.
	Highest Temp. in Shade.	Lowest Temp. in Shade.	Mean Temp.	No. of Days.	Amount Collected in inches.	
1950.						
January ...	54	22	38·8	16	2·86	32·3
February ...	52	21	37·6	20	4·45	67·4
March ...	60	25	44·0	14	3·00	86·3
April ...	57	26	42·9	22	3·14	125·6
May ...	79	36	51·9	11	1·28	179·8
June ...	88	41	59·1	16	2·45	195·7
July ...	71	47	58·4	22	6·11	152·2
August ...	72	45	57·4	22	5·01	127·0
September ...	64	42	51·9	27	9·33	84·6
October ...	64	30	46·9	22	3·29	57·6
November ...	49	23	38·8	18	2·76	38·4
December ...	49	18	32·5	16	1·69	34·2
1939	88	18	47·6	212	38·41	1,177
1940	85	6	46·5	210	39·52	1,111
1941	80	12	46·3	204	33·34	1,035
1942	80	18	46·3	220	40·64	1,067
1943	86	23	48·0	252	45·43	1,094
1944	80	21	47·3	231	44·44	953
1945	81	11	48·6	233	43·62	1,199
1946	77	19	47·3	222	39·93	1,220
1947	86	8	46·7	209	38·63	1,086
1948	85	25	48·1	233	53·33	1,157
1949	84	19	49·3	222	43·20	1,310
1950	88	18	46·7	226	45·37	1,181

TABLE V.—GLASGOW.—BIRTHS AND BIRTH-RATES *per Million* IN EACH WARD, FOR THE YEAR 1950, AND NUMBER AND PERCENTAGE OF ILLEGITIMATE BIRTHS.

MUNICIPAL WARDS.	Births 1950	Birth- rate 1950	Birth- rate 1949	Illegitimate Births.	
				No.	% Total Births.
1. Shettleston and Tollcross ...	817	19,413	18,535	38	4.7
2. Parkhead ...	391	18,477	18,190	20	5.1
3. Dalnarnock ...	913	20,473	22,784	36	3.9
4. Calton ...	578	20,463	20,383	50	8.7
5. Mile-end ...	928	21,841	22,271	43	4.6
6. Dennistoun ...	441	15,805	16,749	20	4.5
7. Provan ...	352	16,754	17,449	20	5.7
8. Cowlairs ...	560	18,295	19,814	27	4.8
9. Springburn ...	520	18,127	17,597	26	5.0
10. Townhead ...	787	21,119	20,601	38	4.8
11. Exchange ...	394	16,505	17,631	37	9.4
12. Anderston ...	618	18,235	21,250	39	6.3
13. Park ...	392	15,743	16,391	33	8.4
14. Cowcaddens ...	616	20,646	24,029	44	7.1
15. Woodside ...	604	19,585	21,308	36	6.0
16. Ruchill ...	840	19,547	19,082	56	6.7
17. North Kelvin ...	492	17,976	18,126	26	5.3
18. Maryhill ...	472	18,334	17,877	33	7.0
19. Kelvinside ...	246	11,701	11,935	10	4.1
20. Partick (East) ...	368	14,781	16,254	15	4.1
21. „ (West) ...	517	17,992	19,504	20	3.9
22. Whiteinch ...	384	16,041	15,293	14	3.6
23. Yoker ...	363	12,637	15,534	14	3.8
24. Knightswood ...	233	14,276	14,529	9	3.9
25. Hutchesontown ...	789	22,964	23,608	41	5.2
26. Gorbals ...	972	23,985	24,680	96	9.9
27. Kingston ...	646	21,808	23,780	33	5.1
28. Kinning Park ...	632	20,684	18,863	44	7.0
29. Govan ...	820	22,025	22,700	44	5.4
30. Fairfield ...	446	18,368	16,971	12	2.7
31. Craigton ...	543	13,966	15,318	6	1.1
32. Pollokshields ...	446	15,020	14,752	21	4.7
33. Camphill ...	276	11,626	12,604	9	3.3
34. Pollokshaws ...	609	20,555	19,211	28	4.6
35. Govanhill ...	429	15,606	16,959	12	2.8
36. Langside ...	306	11,866	12,326	9	2.9
37. Cathcart ...	241	11,080	12,223	5	2.1
Institutions ...	50	—	—	33	—
Harbour ...	—	—	—	—	—
CITY ...	20,031	18,210	18,849	1,097	5.5

TABLE VI.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* IN EACH MUNICIPAL WARD, FOR THE YEAR 1950, AND CORRESPONDING RATES FOR 1949 AND 1948.

MUNICIPAL WARDS.	Deaths 1950	Death-rates		
		1950	1949	1948
1. Shettleston and Tollcross ...	488	11,647	12,459	12,000
2. Parkhead	267	12,983	13,600	12,347
3. Dalrnarnock	526	11,803	12,504	12,623
4. Calton	363	13,574	15,403	13,950
5. Mile-end	487	11,564	11,163	12,520
6. Dennistoun	386	13,834	13,735	12,110
7. Provan	285	14,769	14,326	11,527
8. Cowlairs	349	11,891	11,963	12,988
9. Springburn	310	11,952	11,574	11,565
10. Townhead	475	13,512	13,168	12,483
11. Exchange	297	14,824	12,684	13,860
12. Anderston	417	13,119	13,637	12,895
13. Park	358	14,740	13,663	10,787
14. Cowcaddens	318	10,877	12,367	11,143
15. Woodside	374	12,648	12,315	12,659
16. Ruchill	488	11,579	12,689	11,301
17. North Kelvin	346	12,674	12,565	12,575
18. Maryhill	314	12,652	12,022	13,277
19. Kelvinside	300	15,100	14,933	9,966
20. Partick (East)	343	14,307	13,538	11,518
21. Partick (West)	359	12,547	12,237	12,521
22. Whiteinch	299	12,748	12,265	11,943
23. Yoker	310	10,910	11,377	9,946
24. Knightswood	185	11,438	11,136	10,573
25. Hutchesontown	396	11,535	12,234	11,945
26. Gorbals	493	12,251	12,572	12,762
27. Kingston	324	11,099	11,136	12,128
28. Kinning Park	312	10,348	11,226	11,387
29. Govan	408	11,036	10,413	13,333
30. Fairfield	276	12,202	12,846	10,349
31. Craigton	426	11,045	11,196	9,523
32. Pollokshields	363	13,177	12,196	11,657
33. Camphill	394	16,674	13,789	12,684
34. Pollokshaws	317	10,865	10,860	10,438
35. Govanhill	346	12,824	12,868	12,564
36. Langside	366	14,825	13,602	11,219
37. Cathcart	327	15,133	12,986	11,301
Institutions	695	—	—	—
Harbour	3	—	—	—
CITY	14,090	12,809	12,795	12,270

TABLE VII.—GLASGOW.—NUMBER OF OUTWARD AND INWARD TRANSFER DEATHS
FOR THE YEAR 1950.

No.	CAUSE OF DEATH.	Outward Transfers.	Inward Transfers.
1	Tuberculosis of Respiratory System	34	71
2	Tubercular Meningitis	6	6
51	Abdominal Tuberculosis	3	3
52	Other Tuberculous Diseases	7	5
3	Syphilis and its Sequelae	9	5
4	Typhoid Fever	—	—
6	Dysentery, all forms	2	—
7	Scarlet Fever and Streptococcal Sore Throat	—	—
8	Diphtheria	—	—
9	Whooping Cough	—	1
10	Meningococcal Infections	2	—
12	Acute Poliomyelitis	4	1
14	Measles	1	—
17	Other Infective and Parasitic Diseases	10	5
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues	379	71
19	Benign and Unspecified Neoplasms	24	14
20	Diabetes Mellitus	16	3
21	Anaemias	8	5
22	Vascular Lesions affecting Central Nervous System	125	60
23	Non-meningococcal Meningitis	6	1
24	Rheumatic Fever	4	2
25	Chronic Rheumatic Heart Disease	27	8
26	Arteriosclerotic and Degenerative Heart Disease	229	158
27	Other Diseases of Heart... ..	25	15
28	Hypertension with Heart Disease	18	7
29	Hypertension without mention of Heart	29	3
30	Influenza	—	—
31	Pneumonia (except Pneumonia of Newborn)	51	24
32	Bronchitis	23	14
53	Other Respiratory Diseases	12	8
33	Ulcer of Stomach and Duodenum	55	8
34	Appendicitis	13	—
35	Intestinal Obstruction and Hernia	35	2
36	Gastritis and Duodenitis	—	2
	Enteritis } Under 2 years (except Diarrhoea of Newborn)... ..	21	7
	& Colitis } 2 years and over	15	—
37	Cirrhosis of Liver	10	3
38	Nephritis and Nephrosis	27	4
39	Hyperplasia of Prostate... ..	30	6
40	Complications of Pregnancy, Childbirth and the Puerperium	6	—
41	Congenital Malformations	30	9
42	Birth Injuries, Post-natal Asphyxia and Atelectasis	32	14
43	Infections of the Newborn—Pneumonia	11	—
	" " Diarrhoea	2	—
	" " Others	1	—
44	Other Diseases peculiar to early infancy and Immaturity Unqualified	26	4
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes	23	35
46	All Other Diseases	140	43
47/50	Suicide, Road Traffic Accidents and Other Violent Causes	102	53
	TOTAL	1,633	680

TABLE VIII.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* FROM DIFFERENT CAUSES, FOR THE YEAR 1950, AND CORRESPONDING RATES FOR *1949 AND *1948.

No.	CAUSE.	Deaths 1950	Annual Death Rate <i>per Million.</i>		
			1950	1949	1948
1	Tuberculosis of Respiratory System	953	666	1,010	1,142
2	Tubercular Meningitis	70	64	85	69
51	Abdominal Tuberculosis	10	9	11	29
52	Other Tuberculous Diseases	49	44	31	37
3	Syphilis and its Sequelae	50	45	45	41
4	Typhoid Fever	—	—	1	—
6	Dysentery, all forms	5	5	•	•
7	Scarlet Fever and Streptococcal Sore Throat	1	1	3	3
8	Diphtheria	—	—	4	6
9	Whooping Cough	13	12	19	6
10	Meningococcal Infections	13	12	8	13
12	Acute Poliomyelitis	10	9	1	3
14	Measles	15	14	7	21
17	Other Infective and Parasitic Diseases	46	42	•	•
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues	2,187	1,988	*1,940	*1,877
19	Benign and Unspecified Neoplasms	140	127	•	•
20	Diabetes Mellitus	106	96	*153	*132
21	Anaemias	71	65	•	•
22	Vascular Lesions affecting Central Nervous System	1,777	1,615	*1,231	*1,250
23	Non-meningococcal Meningitis	12	11	•	•
24	Rheumatic Fever	28	25	•	•
25	Chronic Rheumatic Heart Disease	226	205	*3,629	*3,143
26	Arteriosclerotic and Degenerative Heart Disease	3,194	2,904		
27	Other Diseases of Heart	193	175		
28	Hypertension with Heart Disease	203	185	•	•
29	Hypertension without mention of Heart	162	147	•	•
30	Influenza	57	52	*118	*33
31	Pneumonia (except Pneumonia of Newborn)	509	463	*548	*444
32	Bronchitis	696	633	*292	*221
53	Other Respiratory Diseases	137	125	*128	*126
33	Ulcer of Stomach and Duodenum	123	112	*112	*95
34	Appendicitis	38	35	*28	*32
35	Intestinal Obstruction and Hernia	74	67	•	•
36	Gastritis and Duodenitis	14	13	•	•
	Enteritis and Colitis—				
	Under 2 years (excluding Diarrhoea of Newborn)	81	74	*158	*225
	2 years and over	43	39	•	•
37	Cirrhosis of Liver	46	42	•	•
38	Nephritis and Nephrosis	135	123	*187	*200
39	Hyperplasia of Prostate	71	65	•	•
40	Complications of Pregnancy, Childbirth and the Puerperium	18	16	*28	*32
41	Congenital Malformations	138	125	*511	*619
42	Birth Injuries, Post-natal Asphyxia and Atelectasis	198	180		
43	Infections of the Newborn—Pneumonia	28	25		
	Do. do. Diarrhoea	12	11	}	}
	Do. do. Others	2	2		
44	Other Diseases peculiar to early infancy and Immaturity Unqualified	188	171		
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes	535	486	•	•
46	All Other Diseases	858	780	•	•
47/50	Suicide, Road Traffic Accidents and Other Violent Causes	549	499	493	490
13	Smallpox	6	5	—	—
	Total	14,090	12,809	12,795	12,270

* Accurate comparison not possible owing to alterations made in the Rules of International Classification of Death (see Text).

TABLE IX.—GLASGOW, 1950.—DEATHS FROM DIFFERENT CAUSES
IN SEXES AND AT SEVERAL AGE PERIODS (MALES).

No.	CAUSE	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Total Males
1	Tuberculosis of Respiratory System ...	9	6	2	2	2	15	43	74	92	111	95	47	9	507
2	Tubercular Meningitis ...	3	7	12	3	—	4	1	3	2	—	—	—	—	37
51	Abdominal Tuberculosis ...	—	—	1	—	1	2	1	—	1	—	—	—	—	6
52	Other Tuberculous Diseases ...	—	—	3	1	—	2	2	5	2	1	—	3	1	20
3	Syphilis and its Sequelae ...	1	—	—	—	—	—	—	1	1	9	15	12	2	41
4	Typhoid Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	Dysentery, all forms ...	—	—	—	—	—	—	—	—	—	—	—	1	1	2
7	Scarlet Fever and Streptococcal Sore Throat ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Whooping Cough ...	6	3	—	—	—	—	—	—	—	—	—	—	—	9
10	Meningococcal Infections ...	1	4	1	—	—	—	—	—	—	—	—	—	—	6
12	Acute Poliomyelitis ...	1	—	—	1	—	—	—	2	2	—	—	—	—	6
14	Measles ...	3	3	1	—	—	—	—	—	—	—	—	—	—	7
17	Other Infective and Parasitic Diseases ...	4	1	1	2	—	1	—	2	1	4	5	4	4	29
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ...	—	1	3	3	2	5	4	22	59	175	336	367	199	1,176
19	Benign and Unspecified Neoplasms ...	1	—	2	—	—	—	—	2	4	21	18	23	4	75
20	Diabetes Mellitus ...	—	—	—	—	—	—	1	—	4	4	5	6	6	26
21	Anaemias ...	—	—	—	—	—	—	1	—	—	2	1	12	12	28
22	Vascular Lesions affecting Central Nervous System ...	—	—	—	—	2	—	3	3	11	45	114	284	283	745
23	Non-meningococcal Meningitis ...	3	1	2	—	—	—	—	1	—	—	—	—	—	7
24	Rheumatic Fever ...	—	—	—	—	1	—	1	—	2	2	1	—	—	7
25	Chronic Rheumatic Heart Disease ...	—	—	—	—	2	5	4	11	6	14	9	12	8	71
26	Arteriosclerotic and Degenerative Heart Disease ...	1	—	—	—	1	—	—	5	49	181	336	535	558	1,666
27	Other Diseases of Heart ...	—	—	—	—	—	—	—	1	4	12	23	25	22	87
28	Hypertension with Heart Disease ...	—	—	—	—	—	—	—	—	—	7	23	41	28	99
29	Hypertension without mention of Heart ...	—	—	—	—	—	—	—	1	3	11	22	19	31	87
30	Influenza ...	—	—	1	1	—	—	—	2	—	—	7	7	4	22
31	Pneumonia (except Pneumonia of Newborn) ...	60	4	6	1	—	2	2	4	5	24	53	60	66	287
32	Bronchitis ...	9	1	1	—	—	—	—	2	16	60	150	122	109	470
53	Other Respiratory Diseases ...	4	—	—	—	1	1	—	1	11	11	14	14	10	67
33	Ulcer of Stomach and Duodenum ...	—	—	—	—	—	—	—	6	11	22	27	26	10	102
34	Appendicitis ...	—	1	1	—	—	1	—	3	1	4	2	3	1	17
35	Intestinal Obstruction and Hernia ...	3	—	—	1	—	—	—	—	2	2	6	16	11	41
	Gastritis and Duodenitis ...	—	—	—	—	—	1	—	—	—	2	2	1	—	6
	Enteritis and Colitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36	Under 2 years (excluding Diarrhoea of Newborn) ...	44	2	—	—	—	—	—	—	—	—	—	—	—	46
	2 years and over ...	—	—	2	2	—	—	—	1	—	3	7	2	2	19
37	Cirrhosis of Liver ...	—	—	—	1	—	—	—	—	5	5	12	3	3	30
38	Nephritis and Nephrosis ...	1	—	1	—	2	1	3	7	7	10	15	12	13	72
39	Hyperplasia of Prostate ...	—	—	—	—	—	—	—	—	1	—	3	21	46	71
40	Complications of Pregnancy, Childbirth and the Puerperium ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
41	Congenital Malformations ...	56	2	2	1	1	2	1	—	3	1	—	2	—	71
42	Birth Injuries, Post-natal Asphyxia and Atelectasis ...	124	—	1	—	—	—	—	—	—	—	—	—	—	125
43	Infections of the Newborn—Pneumonia ...	17	—	—	—	—	—	—	—	—	—	—	—	—	17
	Diarrhoea ...	6	—	—	—	—	—	—	—	—	—	—	—	—	6
	Others ...	2	—	—	—	—	—	—	—	—	—	—	—	—	2
44	Other Diseases peculiar to early infancy and Immaturity Unqualified ...	101	—	—	—	—	—	—	—	—	—	—	—	—	101
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ...	16	—	2	1	—	—	—	1	6	35	63	83	73	280
46	All other Diseases ...	12	1	3	8	4	6	3	3	17	36	63	106	135	397
47	Suicide, Road Traffic Accidents and other Violent Causes ...	17	6	17	18	5	8	14	30	40	47	48	37	49	336
50															
	Total ...	505	43	65	46	24	56	85	191	370	863	1,475	1,906	1,700	7,329

TABLE IX.—GLASGOW, 1950.—DEATHS FROM DIFFERENT CAUSES
IN SEXES AND AT SEVERAL AGE PERIODS (FEMALES).

No.	CAUSE	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75--	Total Females.	Total Both Sexes.	Sex not stated.
1	Tuberculosis of Respiratory System ...	3	3	5	4	5	44	99	145	69	31	23	10	5	446	953	—
2	Tubercular Meningitis ...	1	8	7	3	3	3	3	3	1	—	1	—	—	33	70	—
51	Abdominal Tuberculosis ...	—	—	—	—	—	—	2	—	1	1	—	—	—	4	10	—
52	Other Tuberculous Diseases ...	1	1	2	1	—	1	—	4	7	7	3	2	—	29	49	—
3	Syphilis and its Sequelae ...	—	—	—	—	—	—	—	—	1	2	5	1	—	9	50	—
4	Typhoid Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	Dysentery, all forms ...	—	—	—	—	—	—	—	—	—	1	1	—	1	3	5	—
7	Scarlet Fever and Streptococcal Sore Throat ...	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—
8	Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Whooping Cough ...	2	1	1	—	—	—	—	—	—	—	—	—	—	4	13	—
10	Meningococcal Infections ...	3	2	2	—	—	—	—	—	—	—	—	—	—	7	13	—
12	Acute Poliomyelitis ...	—	1	2	—	—	—	—	—	1	—	—	—	—	4	10	—
14	Measles ...	5	1	1	1	—	—	—	—	—	—	—	—	—	8	15	—
17	Other Infective and Parasitic Diseases ...	—	—	1	—	—	—	—	1	2	—	3	6	4	17	46	—
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues ...	—	2	1	1	2	1	1	15	65	153	268	295	207	1011	2187	—
19	Benign and Unspecified Neoplasms ...	—	—	—	—	—	1	2	4	5	12	12	14	15	65	140	—
20	Diabetes Mellitus ...	—	—	—	—	—	1	—	1	1	3	22	36	16	80	106	—
21	Anaemias ...	—	—	1	—	—	—	—	1	1	3	7	16	14	43	71	—
22	Vascular Lesions affecting Central Nervous System	—	—	—	1	—	2	—	3	10	63	167	376	410	1032	1777	—
23	Non-meningococcal Meningitis ...	1	2	—	—	—	—	—	—	—	—	2	—	—	5	12	—
24	Rheumatic Fever ...	—	—	1	1	2	2	1	3	2	4	5	—	—	21	28	—
25	Chronic Rheumatic Heart Disease ...	—	—	2	2	4	5	17	26	39	25	23	12	155	226	—	—
26	Arteriosclerotic and Degenerative Heart Disease ...	—	—	—	—	1	1	9	20	61	217	499	720	1528	3194	—	—
27	Other Diseases of Heart ...	—	—	—	1	2	—	2	5	9	19	39	29	106	193	—	—
28	Hypertension with Heart Disease ...	—	—	—	—	—	—	—	1	13	18	41	31	104	203	—	—
29	Hypertension without mention of Heart ...	—	—	—	—	—	—	1	1	3	8	16	27	19	75	162	—
30	Influenza ...	—	—	2	—	—	—	—	2	—	1	3	12	15	35	57	—
31	Pneumonia (except Pneumonia of Newborn) ...	44	3	7	1	—	2	3	5	12	18	24	29	74	222	509	—
32	Bronchitis ...	4	—	1	—	1	—	—	1	8	21	42	71	77	226	696	—
53	Other Respiratory Diseases	8	—	—	—	—	—	—	2	2	2	8	11	37	70	137	—
33	Ulcer of Stomach and Duodenum ...	—	—	—	—	—	—	—	2	—	5	3	6	5	21	123	—
34	Appendicitis ...	—	—	2	1	—	1	2	3	2	3	4	2	1	21	38	—
35	Intestinal Obstruction and Hernia ...	3	—	—	—	—	—	1	—	3	1	6	11	8	33	74	—
36	Gastritis and Duodenitis ...	—	1	—	—	—	—	—	—	2	—	2	1	2	8	14	—
36	Enteritis and Colitis—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36	Under 2 years (excluding Diarrhoea of Newborn)	33	2	—	—	—	—	—	—	—	—	—	—	—	35	81	—
37	2 years and over ...	—	—	2	—	—	—	1	1	2	4	1	11	2	24	43	—
38	Cirrhosis of Liver ...	—	—	—	—	—	—	—	—	3	5	4	1	3	16	46	—
39	Nephritis and Nephrosis ...	—	—	—	—	—	1	2	8	3	10	14	12	8	63	135	—
40	Hyperplasia of Prostate ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71	—
40	Complications of Pregnancy, Childbirth and the Puerperium ...	—	—	—	—	2	2	6	8	—	—	—	—	—	18	18	—
41	Congenital Malformations ...	52	3	2	—	—	1	—	3	—	2	2	1	—	66	137	1
42	Birth Injuries, Post-natal Asphyxia and Atelectasis	73	—	—	—	—	—	—	—	—	—	—	—	—	73	198	—
43	Infections of the Newborn—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
43	Pneumonia ...	11	—	—	—	—	—	—	—	—	—	—	—	—	11	28	—
43	Diarrhoea ...	6	—	—	—	—	—	—	—	—	—	—	—	—	6	12	—
43	Others ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
44	Other Diseases peculiar to early infancy and Immaturity Unqualified	87	—	—	—	—	—	—	—	—	—	—	—	—	87	188	—
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes ...	19	—	—	—	—	1	—	3	4	9	14	44	161	255	535	—
46	All Other Diseases ...	5	3	2	6	2	2	5	14	26	40	89	103	164	461	858	—
47	Suicide, Road Traffic Accidents and other Violent Causes	11	1	7	10	3	1	3	7	9	13	25	41	82	213	549	—
50	Smallpox ...	1	—	—	—	—	2	2	1	—	—	—	—	—	6	6	—
13	Total ...	373	34	49	32	21	75	136	267	310	544	1055	1742	2122	6760	14089	1

TABLE X.—GLASGOW, 1950.—DEATHS OCCURRING IN INSTITUTIONS
FOR THE TREATMENT OF THE SICK, NURSING HOMES, ETC.

No.	CAUSE	General Hospitals and Welfare Institutions.	Fever Hospitals and Sanatoria.	Mental Hospitals.	Voluntary Hospitals.	Nursing Homes.	Totals.	% of all Deaths.	Outward Transfer Deaths.
1	Tuberculosis of Respiratory System	106	274	8	—	2	390	40.9	33
2	Tubercular Meningitis	11	56	—	—	—	67	95.7	6
51	Abdominal Tuberculosis	4	3	—	1	—	8	80.0	3
52	Other Tuberculous Diseases	13	21	—	—	—	34	69.4	7
3	Syphilis and its Sequelae	27	2	8	1	1	39	78.0	9
4	Typhoid Fever	—	—	—	—	—	—	—	—
6	Dysentery, all forms	2	3	—	—	—	5	100.0	2
7	Scarlet Fever and Streptococcal Sore Throat	1	—	—	—	—	1	100.0	—
8	Diphtheria	—	—	—	—	—	—	—	—
9	Whooping Cough	—	8	—	—	—	8	61.5	—
10	Meningococcal Infections	4	7	—	—	—	11	84.6	2
12	Acute Poliomyelitis	2	8	—	—	—	10	100.0	4
14	Measles	1	11	—	—	—	12	80.0	1
17	Other Infective and Parasitic Diseases	18	10	3	—	1	32	69.6	10
18	Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues	852	38	21	16	34	961	43.9	366
19	Benign and Unspecified Neoplasms	74	2	1	1	2	80	57.1	23
20	Diabetes Mellitus	53	1	4	1	—	59	55.7	16
21	Anaemias	24	1	5	1	3	34	47.9	8
22	Vascular Lesions affecting Central Nervous System	495	11	39	25	57	627	35.3	114
23	Non-meningococcal Meningitis	5	5	1	—	—	11	91.7	6
24	Rheumatic Fever	16	3	1	—	1	21	75.0	4
25	Chronic Rheumatic Heart Disease	104	8	4	3	2	121	53.5	26
26	Arteriosclerotic and Degenerative Heart Disease	411	31	98	37	101	678	21.2	171
27	Other Diseases of Heart	50	6	1	1	3	70	36.3	23
28	Hypertension with Heart Disease	90	4	6	—	5	105	51.7	17
29	Hypertension without mention of Heart	88	4	5	2	2	101	62.3	28
30	Influenza	6	—	1	—	—	7	12.3	—
31	Pneumonia (except Pneumonia of Newborn)	144	158	22	1	6	331	65.0	50
32	Bronchitis	159	11	16	9	5	200	28.7	22
53	Other Respiratory Diseases	44	6	4	1	2	57	41.6	12
33	Ulcer of Stomach and Duodenum	89	1	1	—	1	92	74.8	55
34	Appendicitis	36	1	—	—	1	38	100.0	13
35	Intestinal Obstruction and Hernia	56	2	—	—	3	61	82.4	34
	Gastritis and Duodenitis	5	—	2	—	—	7	50.0	—
36	Enteritis) Under 2 years (excluding Diarrhoea of Newborn) (and Colitis) 2 years and over	24	35	1	1	—	61	75.3	20
	... ..	23	6	—	—	—	29	67.4	15
37	Cirrhosis of Liver	31	—	2	—	—	33	71.7	10
38	Nephritis and Nephrosis	58	3	7	2	—	70	51.9	26
39	Hyperplasia of Prostate	49	5	—	1	3	58	81.7	30
40	Complications of Pregnancy, Childbirth and the Puer- perium	10	6	—	—	—	16	88.9	5
41	Congenital Malformations	79	9	5	1	3	97	70.3	29
42	Birth Injuries, Post-natal Asphyxia and Atelectasis	143	11	13	—	9	176	88.9	32
43	Infections of the Newborn—Pneumonia	23	—	—	—	—	23	82.1	10
	Do. Do. —Diarrhoea	6	3	—	—	—	9	75.0	2
	Do. Do. —Others	1	1	—	—	—	2	100.0	1
44	Other Diseases peculiar to early infancy and Immaturity Unqualified	109	24	4	—	10	147	78.2	25
45	Senility without mention of Psychosis, Ill-defined and Unknown Causes	58	4	9	14	7	92	17.2	15
46	All other Diseases	382	18	33	8	28	469	54.7	135
47	Suicide, Road Traffic Accidents and other Violent Causes	268	3	2	1	5	279	50.8	89
50									
13	Smallpox	—	6	—	—	—	6	100.0	—
	Total	4,263	830	327	128	297	5,845	41.5	1,509

TABLE XI.—GLASGOW.—DEATHS UNDER 1 YEAR AND DEATH-RATES PER 1,000 BIRTHS IN EACH MUNICIPAL WARD, FOR THE YEAR 1950.

MUNICIPAL WARDS.	Deaths —1 Year.		Death Rate per 1,000 Births.		
	1950.		1950.	1949.	1948.
1. Shettleston and Tollcross	46	56	60	52	
2. Parkhead	17	43	49	54	
3. Dalmarnock	37	41	66	63	
4. Calton	24	42	83	53	
5. Mile-end	54	58	55	61	
6. Dennistoun	22	50	50	47	
7. Provan	13	37	57	64	
8. Cowlairs	29	52	40	60	
9. Springburn	25	48	45	66	
10. Townhead	40	51	58	54	
11. Exchange	25	63	40	50	
12. Anderston	26	42	60	57	
13. Park	18	46	57	53	
14. Cowcaddens	21	34	48	70	
15. Woodside	28	46	48	55	
16. Ruchill	29	35	45	51	
17. North Kelvin	26	53	38	56	
18. Maryhill	23	49	51	59	
19. Kelvinside	5	20	47	28	
20. Partick (East)	11	30	34	36	
21. „ (West)	21	41	35	63	
22. Whiteinch	11	29	32	52	
23. Yoker	15	41	34	40	
24. Knightswood	10	43	58	73	
25. Hutchesontown	28	35	67	44	
26. Gorbals	61	63	74	70	
27. Kingston	33	51	40	83	
28. Kinning Park	20	32	39	51	
29. Govan	37	45	43	71	
30. Fairfield	15	34	24	42	
31. Craigton	18	33	33	39	
32. Pollokshields	21	47	45	40	
33. Camphill	7	25	39	31	
34. Pollokshaws	29	48	50	69	
35. Govanhill	13	30	34	50	
36. Langside	7	23	21	19	
37. Cathcart	9	37	33	20	
Institutions	5	—	—	—	
Harbour	—	—	—	—	
CITY	879	44	49	56	

TABLE XII.—GLASGOW 1950—INFANT DEATHS AT GIVEN AGES AND FROM SEVERAL CAUSES.

CAUSE OF DEATH.	MALES.						FEMALES.						Total —1 year Both Sexes.	Sex Unknown
	Age in Months.						Age in Months.							
	—1	—3	—6	—9	—12	Total.	—1	—3	—6	—9	—12	Total.		
I. CONGENITAL MALFORMATIONS	31	12	5	6	2	56	31	11	5	3	2	52	108	1
II. DISEASES OF EARLY INFANCY—														
(a) Congenital Debility, Sclerema, Icterus and Illdefined Causes	9	3	—	—	—	12	9	2	1	—	—	12	24	—
(b) Premature Birth	70	1	—	—	—	71	50	6	—	—	—	56	127	—
(c) Injury at Birth	63	—	—	—	—	63	39	—	—	—	—	39	102	—
(d) Atelectasis	59	1	1	—	—	61	33	1	—	—	—	34	95	—
(e) Others	43	—	—	—	—	43	37	1	—	—	—	38	81	—
III. DISEASES OF RESPIRATORY SYSTEM	1	26	25	16	5	73	—	14	23	11	8	56	129	—
IV. DISEASES OF DIGESTIVE SYSTEM—														
(a) Diarrhoeal	—	16	17	7	4	44	—	16	10	3	4	33	77	—
(b) Others	3	1	—	—	—	4	1	1	1	—	1	4	8	—
(c)	1	1	1	3	1	7	—	1	—	—	—	1	8	—
V. DISEASES OF NERVOUS SYSTEM														
VI. TUBERCULOUS DISEASES—														
(a) Pulmonary Tuberculosis	—	—	—	4	5	9	—	—	1	1	1	3	12	—
(b) Tuberculous Meningitis	—	—	—	2	1	3	—	1	—	—	—	1	4	—
(c) Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(d) Other Forms	—	—	—	—	—	—	—	—	1	—	—	1	1	—
VII. INFECTIOUS DISEASES—														
(a) Measles	—	1	1	—	1	3	—	1	—	2	2	5	8	—
(b) Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Whooping Cough	—	2	1	1	2	6	—	1	1	—	—	2	8	—
(d) Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(e) Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(f) Cerebro-spinal Fever	—	—	—	1	—	1	—	—	1	—	2	3	4	—
(g) Varicella	—	—	1	—	1	2	—	—	—	—	—	—	2	—
(h) Typhoid and Paratyphoid Fevers	1	—	—	—	—	1	—	—	—	—	—	—	1	—
VIII. SYPHILIS	1	—	—	1	—	5	—	2	2	1	—	6	11	—
IX. OVERLAYING	1	3	8	1	—	12	2	1	1	1	—	5	17	—
X. OTHER VIOLENCE	—	9	10	2	3	29	3	8	7	1	3	22	51	—
XI. ALL OTHER CAUSES	5	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS	287	77	72	44	25	505	206	67	54	23	23	373	878	1

TABLE XIII.—GLASGOW, 1948-1950.—ABSTRACT OF NOTIFICATIONS UNDER NOTIFICATION OF BIRTHS ACT, 1907, AND RESULTS OF VISITS.

	1950	1949	1948
Total Number of Notifications	20,845	21,565	23,108
Doctor at Home	5,419	5,171	3,533
Doctor in Nursing Home	1,538	1,778	2,224
Doctor in Institution	10,586	10,500	10,331
Maternity Hospital (Outdoor) Nurse ...	1,126	1,550	2,080
Midwife in Nursing Home	499	532	535
Certified Midwife	14	29	1,112
Municipal Midwife	1,655	1,996	3,290
Others	8	9	3
Total Cards issued	20,845	21,159	18,474
Total Cards returned	20,860	20,993	18,695
Full Information	20,435	20,414	18,373
Doctor found in Attendance	—	—	—
Others	425	579	322

TABLE XIV.—GLASGOW, 1947-1949.—BIRTHS NOTIFIED SHOWING MEDICALLY AND NOT MEDICALLY ATTENDED.

	1950	1949	1948
Notifications Received— <i>less Duplicates</i> —			
Total	20,845	21,565	23,108
Live-births	20,243	20,932	22,368
Still-births	602	633	740
Per cent. Still-births to Total	2·9	2·9	3·2
Medically attended—			
Births at Home	5,419	5,171	3,533
Births in Nursing Home	1,538	1,778	2,224
In Institutions	10,586	10,500	10,331
Total	17,543	17,449	16,088
Per cent.	84·1	80·9	69·6
Still-births at Home	108	108	96
Still-births in Nursing Home	30	45	44
Still-births in Institutions	413	425	489
Not Medically attended—			
Maternity Hospital, Outdoor Nurse ...	1,126	1,550	2,080
Certified Midwives in Nursing Home ...	499	532	535
Certified Midwives in Private Practice ...	14	29	1,112
Municipal Midwives	1,655	1,996	3,290
Others	8	9	3
Total	3,302	4,116	7,020
Per cent.	16	19	30
Still-births	51	55	111

TABLE XV.—GLASGOW, 1950 and 1949.—CASES OF INFECTIOUS DISEASE REGISTERED AND NUMBERS OF THESE TREATED IN FEVER HOSPITALS, &C.

	1950				1949			
	Fever Hosp.	Other Institutions	Home	Total	Fever Hosp.	Other Institutions	Home	Total
A.—Notifiable—								
Typhus Fever	—	—	—	—	—	—	—	—
Enteric Fever	4	—	1	5	2	—	—	2
Paratyphoid B	11	—	2	13	8	—	—	8
Continued and Undefined Fever	2	—	1	3	8	—	—	8
Puerperal Fever	135	17	1	153	181	9	2	192
Puerperal Pyrexia	50	47	15	112	55	40	19	114
Smallpox	18	—	—	18	—	—	—	—
Scarlet Fever	1,402	26	471	1,899	1,759	—	572	2,331
Diphtheria and Membranous Croup	*84	—	2	*86	*152	1	1	*154
Erysipelas	125	3	154	282	165	4	137	306
Cholera	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	106	7	2	115	94	3	4	101
Ophthalmia Neonatorum	17	—	157	174	17	—	115	132
Trachoma	—	—	5	5	—	—	—	—
Acute Encephalitis Lethargica	1	—	—	1	1	1	2	4
Acute Polio-Encephalitis	4	1	—	5	2	—	—	2
Acute Poliomyelitis	266	6	12	284	24	—	4	28
Acute Primary Pneumonia	2,044	713	779	3,536	2,234	1,130	1,134	4,498
Acute Influenzal-Pneumonia	1	14	26	41	4	12	60	76
Malaria	9	—	—	9	9	—	5	14
Dysentery	1,210	232	930	2,372	1,032	8	361	1,401
Infective Jaundice	3	—	—	3	3	2	5	10
Anthrax	3	—	1	4	—	—	—	—
Pulmonary Tuberculosis	857	—	1,589	2,446	927	—	1,902	2,829
Other Forms of Tuberculosis	180	—	189	369	158	—	232	390
Leprosy	2	—	—	2	—	—	—	—
B.—Not Notifiable—								
Measles	800	39	5,998	6,837	440	1	3,591	4,032
German Measles	170	6	3,123	3,299	38	—	233	271
Whooping-cough	360	28	4,995	5,383	317	—	3,630	3,947
Chickenpox	162	3	6,839	7,004	104	1	3,595	3,700
Mumps	18	5	2	25	37	—	—	37
Pemphigus Neonatorum	17	—	3	20	9	—	2	11
Totals	8,061	1,147	25,297	34,505	7,780	1,212	15,606	24,598
Notified, but diagnosis altered to Non-Infectious Diseases	2,550	3	5	2,558	3,168	1	12	3,181
Total Registered	10,611	1,150	25,302	37,063	10,948	1,213	15,618	27,779

Where patients suffer from two or more diseases, each disease is reckoned as a case.

Apart from cases of pneumonia admitted to Corporation General Hospitals and Voluntary Institutions in times of pressure; cases of puerperal fever, puerperal pyrexia, and ophthalmia neonatorum occurring in other than Fever Hospitals and allowed to remain; and cases of trachoma treated in Stobhill Hospital; the cases shown under the headings "Other Institutions" are, for the most part, accidental.

* Includes Diphtheria Carriers (7 in 1950; 3 in 1949).

TABLE XVII.
OPERATIONS OF SANITARY SECTION.

1. (a) Nuisances.	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1950	1949
INSPECTIONS made—							
Nuisances	80,837	74,298	105,521	57,445	117,296	435,397	575,618
Bug Disinfestation	1,618	493	1,811	1,560	964	6,446	5,504
Water Storage Cisterns	45	636	152	—	230	1,063	3,948
Limewashings	4,844	12,155	4,087	3,416	6,289	30,791	35,822
Stair Cleaning	2,258	3,562	2,838	2,114	3,372	14,144	15,508
Drain Testing	2,602	3,331	2,507	2,878	3,985	15,303	15,465
Rats and Mice Destruction Acts	4,959	7,192	7,337	6,652	1,243	27,383	32,119
Total	97,163	101,667	124,253	74,065	133,379	530,527	683,984
Nuisances removed or remedied	6,946	14,573	10,743	7,143	13,678	53,083	59,968
Consisting of—							
Apartments, Lobbies, or W.C.'s, with insufficient light or ventilation, or otherwise defective in construction	—	1	—	2	2	5	13
Defective Chimneys causing nuisance	87	132	63	104	119	505	588
Disrepair or dampness in Dwelling-houses	1,007	1,773	1,138	966	2,325	7,209	9,263
Offensive smells from Drains, or other reasonable grounds—							
smoke test	—	1	1	1	—	3	6
Drains, Conductors, Soil-pipes, or Pipes choked or defective ...	3,421	5,896	4,033	3,663	5,725	22,738	23,403
Sanitary Fittings choked or defective	401	866	511	583	735	3,096	3,679
Dirty Houses and Bedding and Children	2	18	1,560	16	48	1,644	1,551
Dirty Closets, Stairs, etc. (daily and bi-weekly cleaning) ...	52	695	107	64	98	1,016	1,594
Houses overcrowded	—	932	878	—	874	2,684	3,358
Common passages, stairs or staircases not in a cleanly state (limewashing or painting) ...	1,075	1,473	937	565	1,008	5,058	5,339
Animals or Poultry kept so as to be a nuisance	—	—	—	—	—	—	10
Accumulation of Garbage or Rubbish	120	133	23	66	135	477	461
Smells from Decaying Animal Matter or other cause	5	17	1	6	19	48	40
Stagnant Water	14	10	4	11	32	71	81
Premises infested with Rats or other vermin	253	730	670	440	506	2,599	3,174
Sink accommodation and Water Supply required	—	1	—	7	—	8	4
Water-Closet accommodation required	—	1	—	3	—	4	1
Water Storage Cisterns dirty, uncovered, or unventilated ...	55	622	9	4	76	766	2,005
Water Supply Pipes defective—tenants without water ...	45	89	10	42	198	384	393

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1950	1949
Pit Shaft without adequate protection	—	—	—	—	—	—	1
Reports to Gas Manager	—	1	—	—	—	1	6
" Master of Works	203	607	225	287	950	2,272	2,664
" Superintendent of							
Cleansing	5	11	19	20	186	241	188
" Water Engineer	201	564	554	293	642	2,254	2,146
Prosecutions—Sheriff Court	4	—	—	5	2	11	21
" Police Court	—	9	6	1	3	19	24
Number Successful	4	7	6	6	5	28	45
Amount of Fines	£35 0 0	£3 0 0	£1 0 0	—	£0 10 0	£39 10 0	£6 15 0
Number of Rotation Cards for Cleansing of Common Stairs, Lobbies, and W.C.'s served on Tenants	637	5,432	692	535	1,124	8,420	9,088
1. (b) Drain Testing.							
Number of Applications for satisfaction of Dean or Guild Court	141	969	228	797	545	2,680	2,769
Number of first Applications to old Tenements or Systems	5	5	7	2	—	19	44
Number of these found more or less defective	4	—	4	—	—	8	9
Subsequent applications to old Tenements or Systems	3	2	3	1	—	9	3
2. Common Lodging Houses.							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register	7	5	7	1	3	23	23
With accommodation for	1,815	1,584	2,220½	382	943	6,944½	6,750
Number of inspections by day	70	62	203	13	120	468	472
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities	2	13	—	3	40	58	56
Number of prosecutions	—	—	—	—	—	—	—
Amount of Fine	—	—	—	—	—	—	—
3. Boarding Houses for Emigrants and Seamen.							
Number measured and registered	—	—	—	—	—	—	1
Total number now on register	4	—	1	—	—	5	5
With accommodation for	429	—	151½	—	—	580½	560½
Number of inspections by day	26	—	75	—	—	101	31
Number of inspections by night	—	—	2	—	—	—	—
Number of irregularities	1	—	—	—	—	1	—
Number of prosecutions	—	—	—	—	—	—	—

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1950	1949
4. Houses-Let-in-Lodgings.							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	86	—	—	1	23	110	111
Number of inspections by day	74	—	—	8	83	165	2,228
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	25	—	—	—	7	32	17
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fines ...	—	—	—	—	—	—	—
5. Farmed-out Houses.							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	78	—	98	—	—	176	200
Number of inspections by day	—	—	720	—	—	720	459
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	—	—	—	—	—	—	28
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fine ...	—	—	—	—	—	—	—
6. Ticketed Houses.							
Number ticketed for first time	—	—	—	—	—	—	—
Total number now on register ...	952	1,258	1,493	—	474	4,177	4,483
Number of visits by day	—	—	—	—	—	—	—
Number of inspections by night	—	—	—	—	—	—	—
Number of cases of Over-crowding found and warned ...	—	—	—	—	—	—	—
Number of prosecutions ...	—	—	—	—	—	—	—
7. Tents and Vans.							
Number of inspections ...	5	46	325	28	26	430	339
Number of irregularities ...	—	—	7	—	7	14	8
Number of prosecutions ...	—	—	1	—	—	1	—
8. Mech. Bakehouses.							
Number measured and registered	3	1	1	2	4	11	25
Total number now on register ...	76	51	62	61	37	287	292
Number of inspections ...	258	158	167	124	143	850	936
Number dirty ...	45	8	7	22	22	104	91
Number Overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	3	1	—	—	1	5	3
Number with sanitary convenience required ...	1	—	—	1	—	2	1
Number with sanitary fittings choked or defective ...	2	2	3	1	1	9	8
Number of other nuisances ...	16	9	8	5	16	54	49
Number of prosecutions ...	1	—	—	—	—	1	—

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1950 1949	
9. Non-Mech. Bakehouses.							
Number measured and registered	—	1	1	—	—	2	6
Total number now on register ...	20	33	26	27	18	124	122
Number of inspections ...	73	105	88	90	77	433	488
Number dirty ...	11	1	30	3	6	51	30
Number overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	—	—	—	1	—	1	1
Number with sanitary conveniences required ...	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective ...	—	—	—	—	—	—	—
Number of other nuisances ...	7	6	—	—	1	14	11
Number of prosecutions ...	—	—	—	—	—	—	—
10. Mech. Factories.							
Number registered ...	127	36	41	21	32	257	379
Total number now on register ...	1,642	618	857	518	645	4,280	4,355
Number of inspections ...	1,654	1,759	2,483	858	1,543	8,297	10,009
Number with sanitary conveniences dirty ...	80	43	8	41	105	277	321
Number defective in light or ventilation ...	41	16	8	43	44	152	252
Number with sanitary conveniences required ...	10	1	2	9	8	30	40
Number with sanitary fittings choked or defective ...	14	49	30	13	124	230	148
Number of other nuisances ...	71	32	18	21	172	314	367
Number of prosecutions ...	—	—	—	—	—	—	—
Amount of Fine ...	—	—	—	—	—	—	—
Other parts of factory—							
Number of other nuisances ...	56	24	37	28	8	153	116
11. Non-Mech. Factories.							
Number measured and registered	16	10	6	7	2	41	97
Total number now on register ...	247	35	138	92	125	637	1,454
Number of inspections ...	306	662	295	326	387	1,976	3,262
Number dirty ...	164	31	1	17	12	225	100
Number overcrowded ...	—	—	—	—	—	—	—
Number defective in light or ventilation ...	10	3	1	7	4	25	39
Number with sanitary conveniences required ...	2	—	—	2	—	4	3
Number with sanitary fittings choked or defective ...	3	5	1	—	6	15	12
Number of other nuisances ...	140	23	4	3	9	179	62
Number of prosecutions ..	—	—	—	—	—	—	—

TABLE XVII.—*Continued*
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1950 1949	
12. Shops.							
Number of inspections	35	1,476	120	3,192	1,094	5,917	14,482
Number dirty	—	2	—	30	28	60	70
Number defective in ventilation, temperature or lighting	—	—	—	60	45	105	56
Number with sanitary conven- iences required	—	—	—	17	6	23	7
Number with washing facilities required	—	—	—	1	—	1	—
Number with sanitary fittings choked or defective	7	13	2	24	12	58	66
Number of other nuisances ...	105	18	39	114	28	304	290
13. Fish Restaurants.							
Number of inspections	—	185	20	38	21	264	198
Number dirty	—	4	1	—	3	8	10
Number defective in light or ventilation	—	—	—	—	—	—	—
Number requiring sanitary con- veniences	—	—	—	—	—	—	1
Number with sanitary fittings choked, etc.	—	2	3	—	—	5	—
Number of other nuisances ...	—	2	4	1	—	7	11
14. Offices.							
Number of inspections	7	64	12	17	71	171	137
Number dirty	1	—	—	—	1	2	1
Number defective in light or ventilation	—	—	—	—	—	—	1
Number with sanitary conven- iences required	—	—	—	—	—	—	—
Number with washing facilities required	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective	—	—	—	—	—	—	1
Number of other nuisances ...	11	—	1	—	—	12	2
15. Homeworkers' Dwellings.							
Total number now on register ...	33	27	33	16	20	129	98
Number of inspections	65	68	23	35	8	199	65
Number found dirty	—	—	—	—	—	—	—
16. Bothies, Chaumers.							
Number of inspections	—	—	—	—	1	1	37
Number dirty	—	—	—	—	—	—	—
Number of other nuisances ...	—	—	—	—	—	—	2

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1950	1949
17. Piggeries.							
Total number now on register ...	6	17	24	8	2	57	54
Number of inspections ...	45	90	240	18	5	398	372
Number found dirty ...	—	6	23	1	—	30	22
Number of other nuisances ...	1	13	13	—	—	27	22
Number of prosecutions ...	—	—	—	—	—	—	—
18. Offensive Trades.							
Total number now on register ...	4	5	42	—	2	53	52
Number of inspections ...	—	91	248	—	4	343	290
Number of irregularities ...	—	8	41	—	—	49	30
Number of prosecutions ...	—	—	—	—	—	—	—
19. Rag Flock Act, 1911.							
Total number of visits ...	—	—	—	—	—	—	—
Samples submitted for analysis ...	—	—	—	—	—	—	—
Certified not to conform to standard ...	—	—	—	—	—	—	—
Number of prosecutions ...	—	—	—	—	—	—	—
Number of convictions ...	—	—	—	—	—	—	—
Amount of fines ...	—	—	—	—	—	—	—
20. Broker's Premises.							
Total number of visits ...	16	28	14	8	6	72	60
Number dirty ...	—	—	—	—	—	—	6
Number of other nuisances ...	1	—	—	—	—	1	1
21. Cemeteries.							
Total number of visits ...	1	8	1	2	—	12	12
22. Civil Defence Property.							
Number of inspections ...	159	769	167	325	2,358	3,778	574
Number dirty ...	1	9	2	1	—	13	28
Number defective in light or ventilation ...	—	—	—	—	—	—	—
Number with sanitary conveniences choked, etc. ...	—	—	—	—	—	—	—
Number of other nuisances ...	—	—	—	—	—	—	—

TABLE XVII.—*Continued.*
OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1950 1949	
23. Infectious Diseases, etc.							
Infectious Diseases, visits ...	11,425	22,146	18,967	14,915	12,902	80,355	53,692
Pre-admissions, Country Homes, visits ...	—	—	—	—	—	—	—
Vaccination visits ...	32	132	42	68	7	281	107
Institutional census ...	—	44	3	—	—	47	5
Whooping Cough Investigations	—	5,712	—	—	—	5,712	—
24. Housing Acts.							
Total number of visits ...	1,470	16,926	5,710	2,112	4,062	30,280	46,559
25. Squatter's Premises.							
Total number of visits ...	149	—	122	1,769	27	2,067	2,260
26. Work of Female Inspectors.							
Under the Glasgow Corporation (Police) Order, 1904—							
(a) Verminous Children.							
Number of visits to schools ...	111	365	396	144	115	1,131	1,204
Number of children submitted for inspection ...	14,096	36,633	32,804	11,606	10,706	105,845	101,791
Number of children found infested ...	28	12	288	294	7	629	507
Number of children found infested ...	2,632	9,175	5,489	1,591	1,577	20,464	20,688
Number of children found with fleas ...	16	47	135	27	32	257	445
Number of children found dirty ...	—	119	1,094	85	266	1,564	803
Number of written notices ...	—	29	228	49	64	370	335
Number of children cleaned by Guardians ...	645	1,657	3,128	1,330	1,297	8,057	9,768
Number of children cleaned by officers ...	—	3	177	—	14	194	172
Number of special visits ...	11	17	46	—	—	74	134
Number of children examined	—	—	—	—	—	—	—
Number of children re-inspected	3,761	10,369	13,573	1,697	4,904	34,307	39,283
Number of infectious diseases	—	1	31	—	5	37	62

TABLE XVII.—*Continued.*OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1950 1949	
(b) Homes of Verminous Children.							
Number of houses inspected ...	319	1,676	3,109	227	622	5,953	7,698
Number of houses in which lodgers were found ...	1	4	5	—	—	10	8
Number of houses found dirty	—	3	7	—	—	10	13
Number of houses with dirty bedding ...	—	2	6	—	—	8	10
Number of written notices ...	—	12	13	—	—	25	13
Number of re-inspections ...	15	5	268	202	1	491	290
Number of houses cleaned ...	—	1	8	1	—	10	13
Number of bedding cleaned ...	—	1	3	—	—	4	9
(c) House-to-House Visitation.							
Number of houses visited first time ...	106	57	112	285	31	591	1,496
Number of houses in which lodgers were found ...	—	—	—	—	—	—	42
Number of houses found dirty	1	—	10	1	—	12	13
Number of houses with dirty bedding ...	—	—	11	1	1	13	12
Number of houses—Written notices... ..	—	—	12	2	—	14	18
Number of houses—Re-visits...	8	4	26	535	—	573	430
Number of houses found cleaned	6	—	9	3	—	18	29
Number of houses—Bedding found cleaned ...	—	—	6	1	—	7	20
(d) Re-housing Scheme Visitation.							
Number of houses visited first time ...	2,312	23,964	33,137	2,261	5,677	67,351	66,671
Number of houses in which lodgers were found ...	172	2,593	3,570	—	—	6,335	6,012
Number of houses found clean	2,013	14,989	18,098	1,934	4,713	41,747	41,854
Number of houses found fair	299	8,770	13,785	322	946	24,122	23,537
Number of houses found unsatisfactory ...	—	—	—	—	—	—	—
Number of houses found dirty	—	205	1,254	5	18	1,482	1,280
Number of houses with dirty bedding ...	—	40	349	1	4	394	248
Number of written notices ...	—	—	1,450	2	3	1,455	1,269
Number of re-visits ...	—	378	1,984	44	29	2,435	2,175
Number of houses found cleaned	—	22	1,301	5	18	1,346	1,215
Number of bedding found cleaned ...	—	15	321	—	1	337	246

TABLE XVII.—*Continued.*
 OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South- Eastern	South- Western	City 1950 1949	
(e) Intermediate Housing Scheme Visitation.							
Number of houses visited ...	161	899	50	94	39	1,243	3,806
Number of houses in which lodgers were found ...	8	59	5	—	—	72	493
Number of houses found clean	103	647	39	61	21	871	2,724
Number of houses found fair...	58	232	7	33	18	348	968
Number of houses found unsatisfactory ...	—	—	—	—	—	—	—
Number of houses dirty ...	—	20	4	—	—	24	114
Number of houses with dirty bedding ...	—	3	2	—	—	5	27
Number of written notices ...	—	—	5	—	—	5	47
Number of re-visits ...	10	38	8	13	—	69	191
Number of houses found cleaned	10	—	8	—	—	18	80
Number of bedding found cleaned ...	—	—	3	—	—	3	20
Number of empty houses visited	—	10	70	1	—	81	127
(f) Other Work.							
Number of nuisances reported by Female Inspectors ...	2	29	238	—	—	269	237
Number of infectious disease cases reported by Female Inspectors ...	—	8	—	—	—	8	3

TABLE XVIII.—GLASGOW.—POPULATION; BIRTHS AND DEATHS; BIRTH-RATES AND DEATH-RATES PER 1,000; ALSO DEATHS UNDER 1 YEAR, AND DEATH-RATES PER 1,000 BIRTHS SINCE 1881.

Year	Population	Births	Deaths	Birth-rate per 1,000	Death-rate per 1,000	Deaths under 1 Year	
						Number	Rate per 1,000 Births
1881	512,034	19,106	12,916	37·3	25·2	2,745	144
1891	567,143	19,857	14,324	35·0	25·3	2,946	148
1901	761,925	24,206	16,197	31·8	21·2	3,607	149
1902	762,789	24,722	15,532	32·4	20·4	3,206	129
1903	763,654	25,135	15,073	32·9	19·7	3,663	146
1904	764,521	24,754	15,414	32·4	20·2	3,606	146
1905	765,389	24,316	14,460	31·8	18·9	3,195	131
1906	780,192*	24,560	14,889	31·5	19·1	3,223	131
1907	781,080	24,006	15,659	30·7	20·0	3,116	130
1908	781,969	23,915	15,265	30·6	19·5	3,284	137
1909	782,860	23,140	15,242	29·6	19·5	3,073	133
1910	783,785	22,222	13,395	28·4	17·1	2,694	121
1911	784,680	21,755	13,899	27·7	17·7	3,016	139
1912	785,600	22,044	13,797	28·1	17·6	2,740	124
1913 [†]	1,021,789*	28,688	17,693	28·1	17·3	3,706	129
1914 [†]	1,028,440	29,462	17,522	28·6	17·0	3,913	133
1915	1,035,091	27,943	20,159	27·0	19·5	4,007	143
1916	1,041,742	27,094	16,601	26·0	15·9	2,996	111
1917	1,048,393	24,030	16,691	22·9	15·9	3,089	129
1918	1,055,044	23,524	18,362	22·3	17·4	2,660	113
1919	1,061,695	25,835	18,237	24·3	17·2	2,937	114
1920	1,068,346	32,626	16,765	31·5	15·7	3,477	107
1921	1,075,000	29,712	15,625	27·6	14·5	3,138	106
1922	1,074,607	28,298	17,850	26·3	16·6	3,401	120
1923	1,074,215	26,710	14,875	24·9	13·8	2,388	89
1924	1,073,822	25,330	16,868	23·6	15·7	3,005	119
1925	1,073,429	25,416	15,336	23·7	14·3	2,591	102
1926	1,090,380*	24,541	15,731	22·7	14·6	2,548	104
1927	1,089,988	23,578	15,439	21·6	14·2	2,527	107
1928	1,089,595	23,649	15,701	21·7	14·4	2,525	107
1929	1,089,202	22,799	17,760	20·9	16·3	2,438	107
1930	1,088,810	23,322	15,455	21·4	14·2	2,355	101
1931	1,088,461	22,926	15,505	21·1	14·2	2,397	105
1932	1,095,263	22,732	16,071	20·8	14·7	2,542	112
1933	1,103,357	21,361	14,747	19·4	13·4	2,061	96
1934	1,115,590	21,822	15,234	19·6	13·7	2,140	98
1935	1,119,414	22,102	15,537	19·7	13·9	2,169	98
1936	1,119,600	22,273	16,406	19·9	14·7	2,429	109
1937	1,119,863	22,176	16,379	19·8	14·6	2,313	104
1938	1,127,825*	21,979	15,016	19·5	13·3	1,919	87
1939	1,128,473	21,682	15,010	19·2	15·0	1,737	80
1940	1,045,333 [†]	20,965	17,603	19·1	16·8	1,983	95
1941	1,045,333	20,365	16,301	18·5	15·6	2,267	111
1942	1,045,333	20,615	14,679	18·8	14·0	1,863	90
1943	1,045,333	22,363	14,824	20·3	14·2	1,825	82
1944	1,050,000	22,203	14,603	20·2	13·9	2,108	95
1945	1,050,000	20,294	13,941	19·3	13·3	1,379	68
1946	1,075,000	23,560	14,502	21·9	13·5	1,588	67
1947	1,100,000	25,829	15,266	23·5	13·9	1,989	77
1948	1,110,000	22,292	13,620	20·1	12·3	1,241	56
1949	1,110,000	20,923	14,203	18·8	12·8	1,033	49
1950	1,100,000	20,031	14,090	18·2	12·8	879	44

* Extended City.

† Births and Deaths from 1913 are corrected for transfers.

† Civilian population only, shown for the war years.

APPENDIX B.

DISMISSALS AND DEATHS, ACCORDING
TO AGE AND SEX, OF CASES OF
INFECTIOUS DISEASES TREATED IN
THE FOUR FEVER HOSPITALS, FOR
THE YEAR 1950.

APPENDIX B.—TABLE I.

FEVER HOSPITALS—STATEMENT OF CASES TREATED ACCORDING TO SEX, ETC., BASED ON DISMISSALS AND DEATHS
FOR YEAR 1950.

	Admitted		Dismissed		Died		Mortality per cent.	Average Residence		Ruchill		Belvidere		Knightswood		Shieldhall		Total Days' Residence	
	Males	Females	Males	Females	Males	Females		Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths	Dis- missals	Deaths
Enteric Fever	4	1	4	2	—	—	—	58	—	4	—	1	—	—	—	—	—	350	—
Paratyphoid Fever	5	6	3	5	—	—	—	49	—	2	—	5	—	—	—	—	—	394	—
Continued and Undefined Fever	—	1	—	—	—	—	—	—	68	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	—	25	—	25	—	—	—	10	8	—	—	25	—	—	—	—	—	258	—
Puerperal Pyrexia	—	7	—	8	—	—	—	16	—	—	—	—	—	—	—	—	—	139	—
Smallpox	1	1	1	1	—	—	—	3	—	1	—	1	—	—	—	—	—	6	—
Scarlet Fever	686	730	725	795	—	—	—	22	198	533	—	625	87	—	—	275	—	33,811	—
Diphtheria and Membranous Croup	48	38	52	38	—	—	—	26	392	36	—	45	—	—	—	8	—	4,131	—
Erysipelas	44	80	46	77	—	—	—	13	53	117	—	1	—	—	—	4	—	1,605	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	60	47	42	39	5	3	9.0	33	4	50	4	17	3	10	1	4	—	2,713	30
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	—	1	—	1	—	—	—	18	3	1	—	—	—	—	—	—	—	18	—
Acute Poliomyelitis	3	2	2	—	1	2	60.0	30	3	1	—	—	—	—	—	—	—	9	—
Acute Poliomyelitis	157	140	153	136	6	3	3.0	38	4	142	1	68	3	54	1	25	1	10,864	32
Acute Primary Pneumonia	1,180	711	1,046	618	115	63	9.7	26	7	452	56	642	65	306	33	264	24	43,055	1,298
Acute Influenzal Pneumonia	—	—	1	—	—	—	—	15	—	—	—	—	—	—	—	—	—	15	—
Malaria	9	—	9	—	—	—	—	13	—	—	—	1	—	—	—	—	—	113	—
Dysentery	617	548	622	543	1	2	0.3	17	18	438	—	688	2	39	—	—	—	19,487	54
Pulmonary Tuberculosis	119	95	110	91	26	12	15.9	97	42	94	14	78	19	16	4	13	1	19,127	1,581
Other Forms of Tuberculosis	73	88	41	46	36	40	46.6	168	61	25	31	22	16	38	21	2	8	14,828	4,639
Measles	429	369	410	356	9	7	2.0	18	13	314	9	283	4	110	2	59	1	13,859	212
German Measles	72	98	72	98	—	—	—	12	—	36	—	107	—	10	—	—	—	1,998	—
Whooping Cough	183	194	132	130	6	1	2.6	42	14	131	4	49	—	53	2	29	1	11,097	99
Chickenpox	85	69	73	65	1	—	—	5	15	2	—	124	1	9	—	3	—	3,419	8
Mumps	8	13	7	11	—	1	5.3	16	3	7	1	3	—	1	—	7	—	279	3
Veneral Diseases	83	84	77	86	2	—	1.2	39	16	92	—	71	2	—	—	6	—	6,374	32
Influenza	12	8	12	9	—	—	—	18	—	7	—	6	—	—	—	—	—	388	—
Leprosy	2	—	2	—	—	—	—	27	—	—	—	—	—	—	—	—	—	54	—
Authrax	3	—	3	—	—	—	—	19	—	—	—	—	—	—	—	—	—	57	—
Infective Jaundice	—	—	—	—	—	—	—	26	—	—	—	—	—	—	—	—	—	78	—
Smallpox Contacts	36	39	36	39	—	—	—	2	—	—	—	22	—	—	—	16	—	158	—
Babies with Mothers	—	1	4	1	—	—	—	17	—	—	—	57	—	—	—	—	—	86	—
Mothers with Babies	—	1	—	—	—	—	—	13	—	—	—	1	—	—	—	—	—	13	—
Unclassified (Staff)	1	31	1	27	—	—	—	25	—	3	—	21	—	4	—	—	—	709	—
No Apparent Disease	83	76	85	73	77	58	4.8	10	—	68	—	51	—	10	—	29	—	1,862	—
Others	1,494	1,255	1,433	1,229	285	192	—	25	23	1,271	68	999	44	338	19	53	1	65,911	3,062
Total	5,506	4,759	5,207	4,550	285	192	4.7	26	24	3,838	193	4,004	160	1,101	84	814	40	257,120	11,056
Phthisis	321	322	254	267	59	55	17.9	207	142	411	85	23	7	74	22	13	—	107,699	16,182

APPENDIX B.—TABLE II.

FEVER HOSPITALS. DEATHS FROM CERTAIN CAUSES, ACCORDING TO SEX AND AGE, FOR THE YEAR 1950.

Diseases	MALES													FEMALES												
	1	2	5	10	15	20	25	35	45	55	65	65+	Total	1	2	5	10	15	20	25	35	45	55	65	65+	Total
Cerebro-spinal Fever	2	2	1	—	—	—	—	—	—	—	—	—	5	1	1	1	—	—	—	—	—	—	—	—	—	3
Acute Polio-encephalitis	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	2
Acute Poliomyelitis	—	3	—	1	1	—	—	—	1	—	—	—	6	—	1	—	—	—	—	—	—	1	1	—	—	3
Acute Primary Pneumonia	30	3	3	—	—	1	1	2	6	17	26	26	115	24	1	5	—	1	—	—	1	2	5	10	14	63
Dysentery	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	1	—	2
Pulmonary Tuberculosis	2	—	1	—	—	1	1	1	3	5	7	5	26	—	1	2	—	—	1	3	4	1	—	—	—	12
Other Forms of Tuberculosis	7	3	14	1	3	2	3	—	—	3	—	—	36	3	5	11	4	2	4	5	3	2	—	1	—	40
Measles	3	4	1	1	—	—	—	—	—	—	—	—	9	5	1	1	—	—	—	—	—	—	—	—	—	7
Whooping Cough	4	2	—	—	—	—	—	—	—	—	—	—	6	1	—	—	—	—	—	—	—	—	—	—	—	1
Chickenpox	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Mumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Veneral Diseases	—	—	—	—	—	—	—	—	1	1	—	—	2	—	—	—	—	—	—	—	—	—	1	—	—	1
Others	24	4	4	—	1	—	—	2	6	9	10	17	77	14	3	3	—	1	1	—	5	4	5	8	14	58
Total	73	21	24	3	5	4	5	5	18	35	43	49	285	48	13	25	4	4	6	8	13	10	13	20	28	192
Phthisis	1	—	—	—	—	2	5	13	15	11	10	2	59	—	—	—	—	1	6	10	16	12	5	5	—	55

APPENDIX B.—TABLE III.

FEVER HOSPITALS. DISMISSALS AND DEATHS ACCORDING TO SEX AND AGE, FOR THE YEAR 1950.

Diseases	MALES													Total	FEMALES													Total
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65 +	-1		-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	65 +			
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	1	1	—	—	2		
Paratyphoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	5		
Continued and Undefined Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25		
Puerperal Pyrexia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8		
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Scarlet Fever	7	29	212	288	138	31	8	6	4	2	—	—	725	1	34	201	335	157	40	12	13	1	1	—	—	795		
Diphtheria and Membranous Croup	2	3	13	18	9	4	1	1	1	—	—	—	52	1	—	10	15	4	3	2	2	1	—	—	—	38		
Erysipelas	1	—	—	—	—	1	1	5	11	9	9	9	46	1	—	—	—	4	6	2	9	6	18	22	9	77		
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Cerebro-spinal Fever	16	10	9	5	2	—	—	—	3	1	1	—	47	16	6	5	7	3	2	—	1	1	—	—	—	42		
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Acute Polio	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Encephalitis	—	—	2	—	—	—	—	—	1	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—		
Acute Poliomyelitis	18	36	57	21	10	4	5	6	1	—	—	—	159	15	29	50	20	5	7	4	5	2	2	—	—	139		
Acute Primary Pneumonia	181	76	124	96	43	47	32	85	114	128	138	97	1,161	116	62	119	59	19	14	17	41	56	44	64	70	681		
Acute Influenzal Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Malaria	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dysentery	56	112	237	126	37	5	7	14	16	7	1	5	623	43	101	206	90	32	16	11	23	8	4	7	4	545		
Pulmonary Tuberculosis	7	9	20	23	13	10	7	8	8	13	10	8	136	3	3	11	8	10	21	19	15	12	1	—	—	103		
Other Forms of Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Tuberculosis	9	9	18	6	8	18	1	5	—	3	—	—	77	5	6	20	12	10	12	11	7	2	—	1	—	86		
Measles	47	109	181	67	5	2	3	3	1	1	—	—	419	46	87	167	46	2	6	7	7	1	—	—	—	363		
German Measles	1	4	20	26	9	7	2	3	—	—	—	—	72	6	4	22	35	8	7	6	8	—	—	1	—	98		
Whooping Cough	42	36	46	14	—	—	—	—	—	—	—	—	138	33	34	43	19	4	5	4	1	—	—	—	—	131		
Chickenpox	2	7	31	26	1	2	1	1	1	1	1	—	74	7	7	21	16	4	5	4	1	—	—	—	—	65		
Mumps	—	—	1	3	2	—	11	21	19	12	4	2	79	7	2	3	4	4	15	18	23	6	6	2	1	86		
Veneral Diseases	—	—	2	—	2	1	1	2	2	2	—	—	12	—	—	—	—	3	2	1	2	—	—	—	—	9		
Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Infective Jaundice	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Smallpox Contacts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Babies with Mothers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Mothers with Babies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Unclassified (Staff)	15	17	16	14	9	3	2	6	1	1	—	1	85	16	10	17	11	8	12	6	6	1	—	1	1	27		
No Apparent Disease	168	155	217	162	97	53	31	69	65	71	62	60	1,510	378	101	157	123	85	76	37	71	70	3	58	58	73		
Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,287		
Total	882	614	1,211	898	391	193	126	252	254	259	229	183	5,492	690	486	1,064	807	358	257	180	255	181	161	159	144	4,742		
Phthisis	2	2	9	11	15	48	40	75	55	30	20	6	313	1	4	9	13	28	79	69	76	31	6	6	—	322		